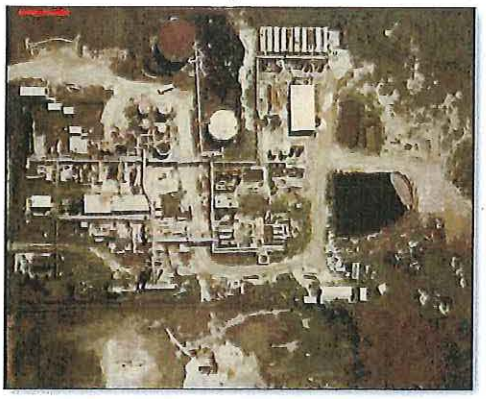
FIFTH FIVE-YEAR REVIEW REPORT FOR GENEVA INDUSTRIES/FUHRMANN ENERGY SUPERFUND SITE HARRIS COUNTY, TEXAS

August 2018



August 1982 aerial of the Site

2018 aerial of the Site
(Imagery ©2018 Google, Map data ©2018 Google)

Prepared by

U.S. Environmental Protection Agency
Region 6
Dallas, Texas

FIFTH FIVE-YEAR REVIEW REPORT FOR
GENEVA INDUSTRIES/FUHRMANN ENERGY SUPERFUND SITE
EPA ID#: TXD980748453
HARRIS COUNTY, TEXAS

This memorandum documents the U.S. Environmental Protection Agency's performance, determinations and approval of the Geneva Industries/Fuhrmann Energy Superfund site (Site) Fifth five-year review under Section 121 (c) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S. Code Section 9621 (c), as provided in the attached Fifth Five-Year Review Report.

Summary of the Fifth Five-Year Review Report

The Site is a former petrochemical facility. The Site's remedy consisted of excavation and off-site disposal of contaminated soils and most drums, capping of residually-contaminated soils and remaining drums with a perimeter slurry wall, recovery and treatment of trichloroethylene-contaminated groundwater, and implementation of institutional controls. Institutional controls are in place for the Site in the form of 28 deed notices that restrict digging on the capped area, restrict activities that could cause erosion or disrupt the integrity of the cap or landfill, restrict groundwater use in the 30-foot sand and 100-foot sand groundwater units, restrict installation of water wells within the cap or landfill, and prohibit residential uses. The Site is currently not in use. There are currently no human or ecological exposure pathways in the short term at the Site. Site groundwater is not used for any purpose. The Site achieved construction completion on September 14, 1993. EPA deleted Operable Unit 1 (soil) from the National Priorities List on April 8, 1997.

Environmental Indicators

Human Exposure Status: Under Control
Contaminated Groundwater Status: Groundwater Migration Under Control
Site-Wide Ready for Reuse: Yes

Actions Needed

The following actions must be taken for the remedy to be protective over the long term:

- Deep zone monitoring wells within the slurry wall (MW-101, MW-102, MW-103 and MW-104) should be plugged and abandoned to avoid acting as conduits for vertical migration of contaminants from the shallow zone to the deep zone.
- Develop an updated conceptual site model to determine if site conditions have changed since early investigations
- Reevaluate site contaminants of concern for groundwater.
- Evaluate the upcoming optimization review report and determine if the current remedy is effective.

Determination

I have determined that the remedy for the Geneva Industries/Fuhrmann Energy Superfund site is short-term protective. This Five-Year Review Report specifies the actions that need to be taken for the remedy to be protective in the long term.

for Ronald D Cumland
Carl E. Edlund, P.E.
Director, Superfund Division
U.S. Environmental Protection Agency, Region 6

8/20/18
Date

CONCURRENCES

FIFTH FIVE-YEAR REVIEW REPORT
GENEVA INDUSTRIES/FUHRMANN ENERGY SUPERFUND SITE
EPA ID#: TXD980748453
HARRIS COUNTY, TEXAS

Stephen Pereira — 8/10/18
Stephen Pereira, Date
Remedial Project Manager

Carlos A. Sanchez — 8/10/18
Carlos A. Sanchez, Date
Chief, AR/TX Section

John C. Meyer — 8/13/18
John C. Meyer, Date
Branch Chief, Superfund Remedial Branch

Jacob Piehl — 8/15/18
Jacob Piehl, Date
Attorney, Office of Regional Counsel

Mark A. Peycke — 08/17/18
Mark A. Peycke, Date
Chief, Superfund Branch, Office of Regional Counsel

Pamela Phillips — 8/20/18
Pamela Phillips, Date
Deputy Director, Superfund Division

ISSUES/RECOMMENDATIONS

FIFTH FIVE-YEAR REVIEW REPORT
GENEVA INDUSTRIES/FUHRMANN ENERGY SUPERFUND SITE
EPA ID#: TXD980748453
HARRIS COUNTY, TEXAS

Issues/Recommendations				
OU(s) without Issues/Recommendations Identified in the FYR:				
OU1				
Issues and Recommendations Identified in the FYR:				
OU(s): 2	**Issue Category:** Remedy Performance			
	Issue: Flow patterns and the extent of contamination in the deep zone are not well-defined, there may not be enough deep-zone groundwater monitoring wells to infer groundwater flow direction, and the DNAPL plume may be expanding to the southeast and may be migrating into the deep zone. Additionally, TCE is the only designated COC, but there are other contaminants, including PCBs and vinyl chloride in groundwater, that continue to exceed their respective PCLs.			
	Recommendation: Develop an updated conceptual site model, determine if site conditions have changed since early investigations, and reevaluate site COCs. Deep zone groundwater monitoring wells should not be installed within the slurry wall because they could serve as additional conduits for vertical migration of contaminants from the shallow zone to the deep zone.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party/Support Agency**	**Milestone Date**
No	Yes	EPA/TCEQ	EPA/TCEQ	12/30/2019
OU(s): 2	**Issue Category:** Remedy Performance			
	Issue: PCB contamination may be outside the slurry wall near MW-26 and the HCFCC, the cluster of deep wells surrounding MW-101 may be potential conduits for vertical contamination migration from the shallow zone, and the presence of DNAPLs in the shallow zone is preventing groundwater monitoring in the shallow zone within the slurry wall.			
	Recommendation: Conduct an evaluation of PCBs remaining on site and determine whether additional actions are needed. The updated conceptual site model and optimization report will be used to assist in planning this activity. Deep zone monitoring wells within the slurry wall (MW-101, MW-102, MW-103 and MW-104) should be plugged and abandoned to avoid acting as conduits for vertical migration of contaminants from the shallow zone to the deep zone.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party/Support Agency**	**Milestone Date**
No	Yes	EPA/TCEQ	EPA/TCEQ	9/30/2020

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LIST OF ABBREVIATIONS AND ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DNAPL	Dense Non-Aqueous Phase Liquid
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FYR	Five-Year Review
HCFCC	Harris County Flood Control Channel
HQ	Hazard Quotient
IC	Institutional Control
MCL	Maximum Contaminant Level
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
msl	Mean Sea Level
MW	Monitoring Well
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PCB	Polychlorinated Biphenyl
PCL	Protective Concentration Level
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	Regional Screening Level
RW	Recovery Well
TCE	Trichloroethylene
TCEQ	Texas Commission on Environmental Quality
TRRP	Texas Risk Reduction Program
UU/UE	Unlimited Use and Unrestricted Exposure
VOC	Volatile Organic Compound

I. INTRODUCTION

The purpose of a five-year review (FYR) is to evaluate the implementation and performance of a remedy to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP) (40 CFR Section 300.430(f)(4)(ii)), and considering EPA policy.

This is the Fifth FYR for the Geneva Industries/Fuhrmann Energy Superfund site (the Site). The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared because hazardous substances, pollutants or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of two operable units (OUs); this FYR addresses both OUs. OU1 addresses soil contamination. OU2 addresses groundwater contamination.

EPA remedial project manager (RPM) Stephen Pereira led the FYR. Participants included Midori Campbell from the Texas Commission on Environmental Quality (TCEQ), Marc Viola, Andy Gilchrest and Michael Stevens from Aptim, TCEQ's Operation & Maintenance (O&M) contractor, and Treat Suomi and Brice Robertson from Skeo, EPA FYR contractor support. The review began on 7/26/2017.

Site Background

The 13.5-acre Site is in the city of Houston in Harris County, Texas (Figure 1). Before 1967, petroleum exploration and production occurred on site. From June 1967 to September 1978, several different owners manufactured petrochemicals on site. Facility operations contaminated site soils and groundwater. The principal sources of contamination at the Site were waste lagoons and ponds, buried drums, landfarming, surface storage of material in drums and piles, and operational leaks and spills.

The Site is not in use. Current site features include monitoring wells, recovery wells, fencing, a paved area for parking, the groundwater treatment system building, and six storage tanks for treated groundwater. The Site is in a primarily commercial, industrial and residential area. The Site is bounded to the north and south by vacant land, to the west by an industrial business, and to the east by a residential community. Appendix A provides additional resources. Appendix B provides a chronology of site events.

The Site and surrounding area are flat and have a maximum surface elevation of about 35 feet above mean sea level (msl). Surface water at the Site runs off into the Harris County Flood Control Channel (HCFCC), which runs along the eastern boundary of the Site. The channel flows north about a mile into Berry Bayou, which is the closest surface water feature to the Site.

The shallowest groundwater bearing zone at the Site is the 30-foot sand (shallow zone), which is a semi-confined groundwater zone between 15 and 35 feet below ground surface (bgs). Groundwater in the shallow zone generally flows east but may vary seasonally. Shallow zone groundwater is not a suitable source of water due to high total dissolved solids. The deeper water bearing zone is the 100-foot sand (deep zone), which is semi-confined and occurs from about 62 to 140 feet bgs. The deep zone is a minor water supply in the area. Groundwater flow in the deep zone varies but a northwest flow direction was observed in the most recent monitoring event (August 2017).

The shallow and deep zones at the Site are part of the Upper Chicot Aquifer. The Lower Chicot Aquifer provides most of the groundwater used for public and industrial water supplies in southeastern Harris County, including the city of South Houston and Galveston County. The bottom depth of the Lower Chicot is about 600 feet bgs. The Evangeline Aquifer lies below the Chicot Aquifer and is the major source of groundwater for the city of Houston.

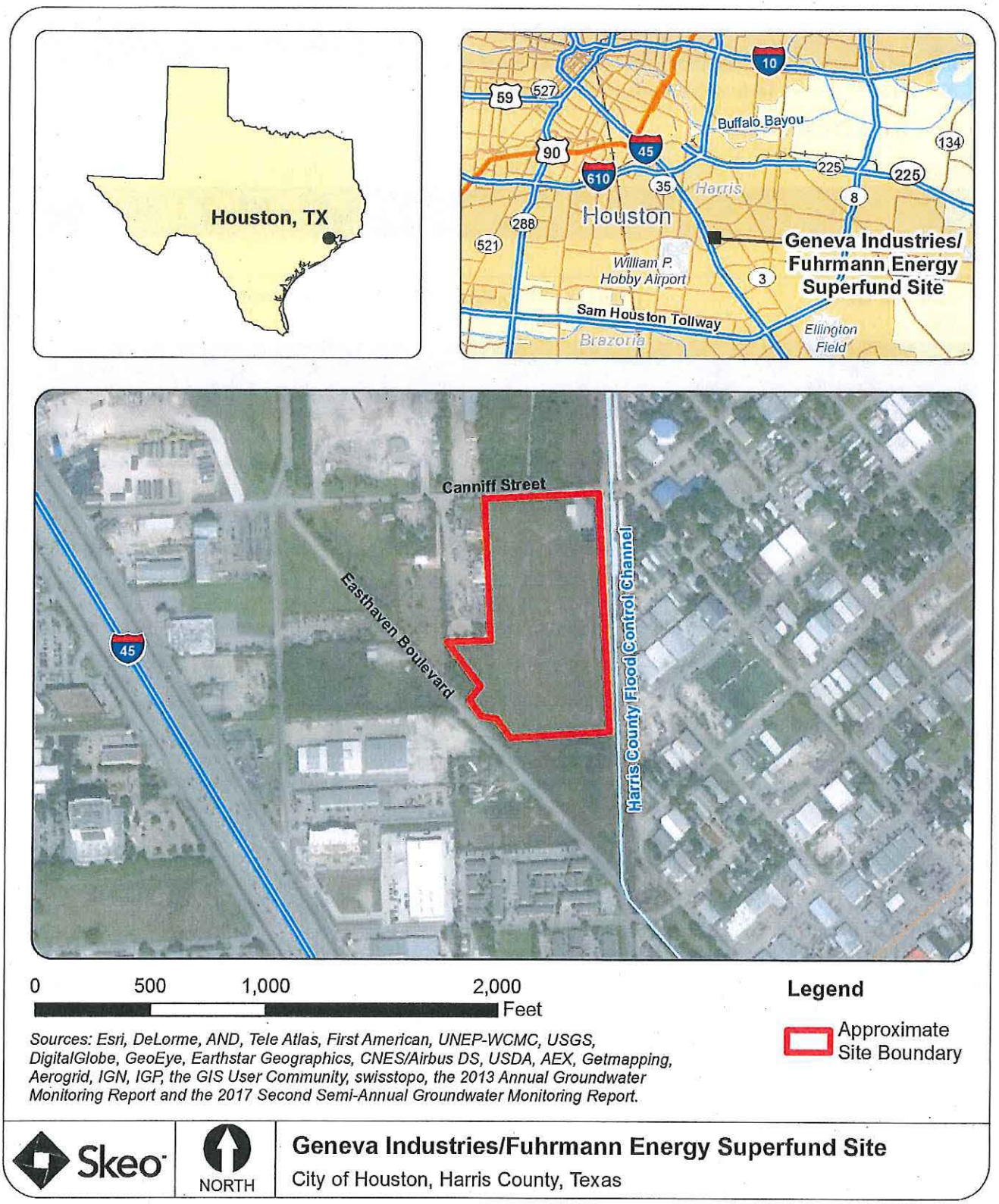
FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Geneva Industries/Fuhrmann Energy		
EPA ID: TXD980748453		
Region: 6	**State:** TX	**City/County:** Houston/Harris

SITE STATUS	
NPL Status: Final	
Multiple OUs? Yes	**Has the Site achieved construction completion?** Yes

REVIEW STATUS
Lead agency: EPA
Author name: Stephen Pereira, with additional support provided by Skeo
Author affiliation: EPA Region 6
Review period: 7/26/2017 - 4/30/2018
Date of site inspection: 10/3/2017
Type of review: Statutory
Review number: 5
Triggering action date: 9/23/2013
Due date ***(five years after triggering action date)*****:** 9/23/2018

Figure 1: Site Vicinity Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site.

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

Texas Water Quality Board and Harris County Pollution Control District issued several citations to the various site owners in the 1970s for unauthorized discharges of wastewater into the adjacent flood control channel (now referred to as the HCFCC). Records also indicated that plant operators had numerous spills and process leaks and that disposal practices deteriorated over time. During the early 1980s, a preliminary site investigation by EPA found significant polychlorinated biphenyl (PCB) contamination in site soils and sediments in the adjacent flood control channel, as well as significant PCB and other organic compounds in groundwater samples. Based on these results, EPA listed the Site on the Superfund program's National Priorities List (NPL) on September 21, 1984.

EPA initiated the Site's remedial investigation and feasibility study (RI/FS) in September 1984. It indicated that site soils were contaminated with PCBs, with the highest concentrations found in the upper 5-6 feet of soil. Sediment contamination in the adjacent flood control channel was found to be minimal due to the emergency removals that took place before the RI/FS. The RI/FS estimated that 400 to 700 drums remained buried on site. The RI/FS also indicated that groundwater in the 30-foot sand was contaminated with PCBs, volatile organic compounds (VOCs) and base-neutral extractables, and had a visible film of oil. Groundwater contamination in the 100-foot sand was limited to trichloroethylene (TCE).

As part of the RI/FS, EPA completed a human health and ecological risk assessment. The human health risk assessment found three primary pathways of potential concern: consumption of contaminated groundwater, ingestion of contaminated aquatic species and plants, and direct contact with contaminated soils and surface water. The ecological risk assessment found an area of stressed vegetation in the adjacent flood control channel and noted that the soil in the area was contaminated with PCBs. EPA concluded that aquatic and benthic biota in the flood control channel had accumulated PCBs at levels exceeding the Food and Drug Administration's tolerance level of 2 milligrams per kilogram (mg/kg) for PCBs in fish and shellfish. However, after the remedy was selected, Harris County lined the ditch with concrete; it currently only has intermittent waters and no aquatic organisms.

Response Actions

From October 1983 to September 1984, EPA performed several emergency removal actions. Removal actions included:

- Closure of all three lagoons.
- Excavation and transportation of 550 drums containing contaminated materials and 30 tons of asbestos to an approved facility.
- Excavation and transportation of 3,400 cubic yards of contaminated soil and sludge to an approved facility.
- Installation of a temporary cap over on-site soils containing greater than 50 mg/kg PCBs.
- Improvement of site drainage. Plugging abandoned oil/gas wells.
- Removing storage tank materials.

EPA issued the Site's Record of Decision (ROD) on September 18, 1986. In the ROD, EPA developed remedial action objectives (RAOs) for the Site:

- Prevent future contamination of the adjacent flood control channel.
- Minimize direct contact with contaminated soil on site.
- Prevent degradation of off-site soil.
- Prevent further degradation of off-site groundwater in the 30-foot sand unit and reduce the risk of degradation of deeper sand units.
- Reduce contamination in the 100-foot sand unit.

The remedy selected in the 1986 ROD and modified by the Site's 1993 and 2007 Explanations of Significant Differences (ESDs) included:

- Removal and disposal of all former buildings and facilities.
- Plugging and abandonment of unnecessary monitoring wells.
- Excavation of soils contaminated with greater than 100 mg/kg PCBs. The 1993 ESD increased the total amount of contaminated soils removed.
- Excavation of most buried drums on site. Remaining buried drums to be relocated underneath the permanent protective cap.
- Disposal of excavated material in an EPA-approved off-site facility.
- Construction of a slurry wall barrier around the Site with a pressure relief well system.
- Construction of a permanent, multi-layer Resource Conservation and Recovery Act (RCRA) protective cap across the site surface.
- Recovery and treatment of the TCE-contaminated groundwater in both the 30-foot and 100-foot sands.
    - The 1993 ESD raised the 1986 ROD remedial goal for TCE from 0.001 milligram per liter (mg/L) to 0.005 mg/L, a result of a change in EPA's promulgated maximum contaminant level (MCL) for TCE.
- Implementation of institutional controls to reflect the current site status and restrict certain activities.

Status of Implementation

OU1

TCEQ began OU1 remedial activities in May 1988 and completed them in September 1990. Completed remedial activities included:

- Removal and disposal of all surface facilities.
- Plugging all unnecessary monitoring wells.
- Excavation and disposal of about 38,900 cubic yards of contaminated soil.
- Excavation and disposal of most buried drums; remaining buried drums were relocated under the protective cap.
- Construction of a slurry wall barrier inside the perimeter of the Site to a depth of 30 feet keyed into the aquitard underlying the shallow zone, with a pressure relief well system. The slurry wall is supposed to prevent migration of contaminants in the shallow zone off site and possible exposure of the flood control channel to free-phase PCB-contaminated oil.
- Construction of a permanent protective cap across the site surface consisting of clay and a synthetic high-density polyethylene liner.

After the completion of remedial activities in September 1993, EPA deleted OU1 from the NPL in April 1997. Institutional controls for OU1 were implemented in August 2015.

OU2

TCEQ began OU2 remedial activities (construction of the groundwater recovery and treatment system) in December 1992. TCEQ completed construction of the system in April 1993. System construction included ten recovery wells and three monitoring wells, 1,878 linear feet of aboveground supported piping, a treatment building containing an activated carbon filtration system, six 30,000-gallon storage tanks, related foundation facilities, service utilities, monitoring controls, asphalt paving and fencing.

By the end of June 1993, EPA and TCEQ verified that discharge criteria had been met in seven verification groundwater discharge events. TCEQ then began the treatment phase of the OU2 remedial activities in July 1993.

The O&M section below details treatment discharge criteria and the location of the discharge point. TCEQ completed several major modifications to the groundwater recovery and treatment system in September 1994. Modifications included addition of a heavy-oil/water separator, related piping changes, charcoal filter material replacement and system cleaning. However, by the end of 1999, TCEQ's O&M contractor failed to maintain the groundwater recovery and treatment system, resulting in shutdowns. TCEQ terminated that contract in October 1999 and hired CB&I (now Aptim) in 2004 to rebuild the system and perform O&M activities at the Site.

CB&I resumed groundwater pumping on a regular basis in 2008. In February 2011, CB&I installed nine new groundwater recovery wells and pumps in the 30-foot sand adjacent to the older recovery wells, a result of siltation in the older wells. Pumping from the deeper zone in the 100-foot sand is currently suspended, as withdrawal of water from the deeper zone may draw contaminants down from the shallow zone.

Institutional Control Review

As required by the 2007 ESD, TCEQ implemented institutional controls at the Site in the form of 28 deed notices on nine affected parcels on and close to the Site in August 2015. The ESD required that the property deed information reflect the current site status and restrict the following activities:

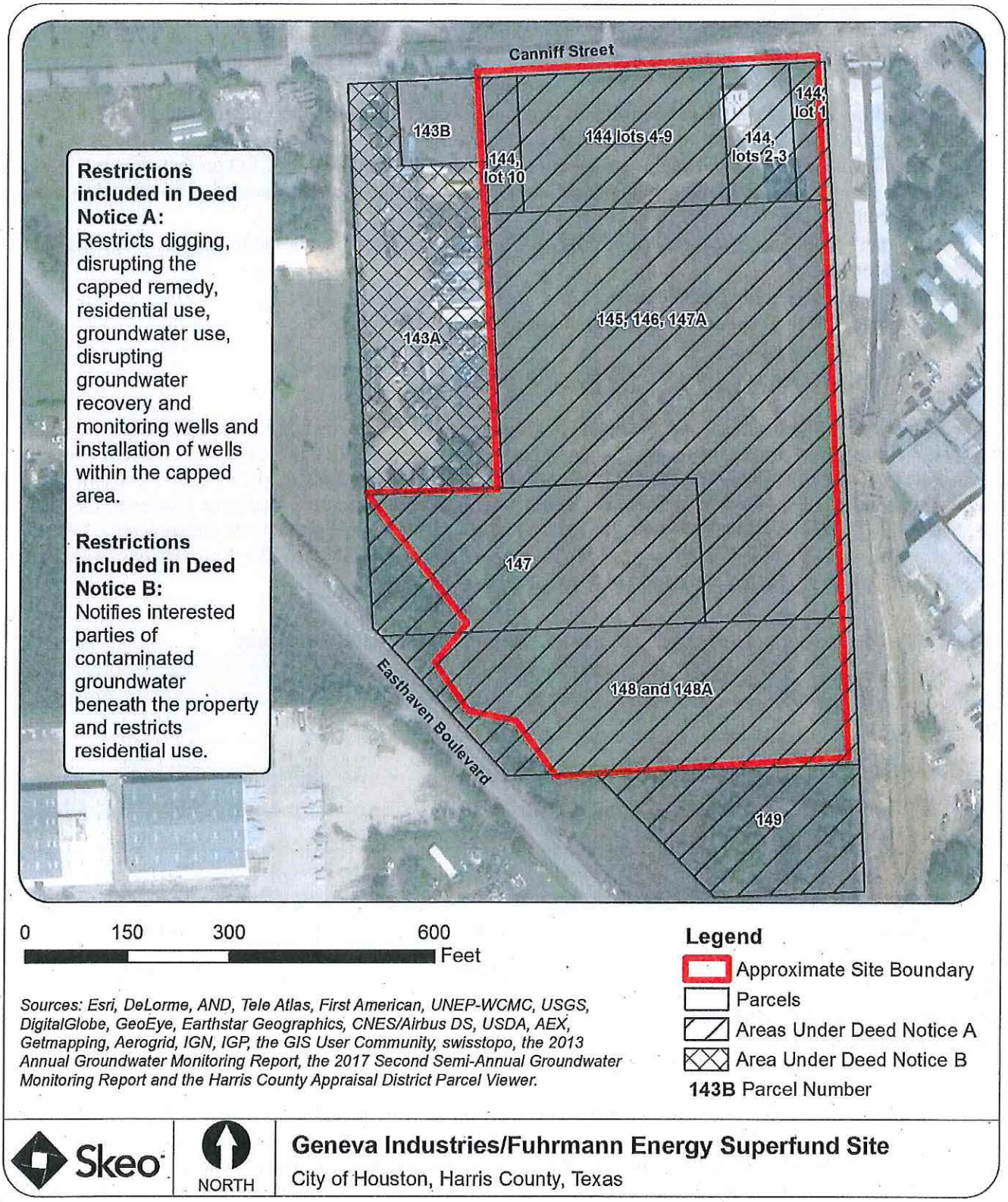
- No digging on the capped area.
- No activities that will cause erosion or disrupt the integrity of the cap or landfill.
- No use, for any purpose, of the groundwater from the 30-foot sand unit and the 100-foot sand unit.
- No water wells of any kind drilled within the cap or landfill.
- No residential use.

Table 1 summarizes implemented institutional controls at the Site; Figure 2 shows institutional controls on a map.

Table 1: Summary of Implemented Institutional Controls (ICs)

Media, Engineered Controls, and Areas That Do Not Support UU/UE Based on Current Conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcels	IC Objective	Title of IC Instrument Implemented and Date
Soil and Groundwater	Yes	Yes	Tract 144 Lots 1-10, Tract 145, Tract 146, Tract 147, Tract 147A, Tract 148 and Tract 148A, Tract 149	Restrict digging on the capped area, any activities that will cause erosion or disrupt the integrity of the cap or landfill, any residential use of the affected properties, groundwater use in the 30-foot and 100-foot sand units, activities that could disturb components of the groundwater recovery and monitoring system, and restrict drilling of water wells within the cap or landfill area.	Deed Notices 20150393005, 20150393006, 20150393007, 20150393008, 20150393009, 20150393010, 20150393011, 20150393012, 20150393013, 20150393014, 20150393015, 20150393016, 20150393017, 20150393018, 20150393019, 20150393020, 20150393021, 20150393022, 20150393023, 20150393024, 20150393025, 20150393026, 20150393027, 20150393028, 20150393029, 20150393030, 20150393032 20150393031 (Referred to as Deed Notice B in Figure 2) (08/28/2015)
	Yes	Yes	Tract 143A	Notifies interested parties of contaminated groundwater beneath property and restricts residential use.	Deed Notice 20150393031 (Referred to as Deed Notice A in Figure 2) (8/28/2015)

Figure 2: Institutional Control Map



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Systems Operations/O&M

O&M activities at the Site are conducted by TCEQ contractor Aptim. Aptim, under direction of TCEQ, updated the Site's O&M Manual and Sampling & Analysis Plan in May 2015. O&M activities include:

- Operation of the groundwater recovery and treatment system (groundwater pumped and treated at an average of about 3 gallons per minute when operational).
- Groundwater sampling and analysis semi-annually or as instructed by the TCEQ project manager. Prior to 2015, groundwater sampling events ranged in frequency from quarterly, tri-annual, semi-annual to annual based on funding.
- Gauging of monitoring and recovery wells each time wells are sampled or the treatment system begins operation.
- Preparation of monthly O&M reports.
- Preparation of semi-annual or annual groundwater sampling reports.
- Monthly site inspections.
- Routine maintenance as needed, including mowing of cap.

Table 2 contains a list of the treated water criteria for contaminants that are analyzed before discharge, which are based on their respective MCLs or levels of required performance, as identified in TCEQ's 2015 O&M Sampling & Analysis Plan and 1993 ESD. The 1986 ROD and 1993 ESD only designated an MCL for TCE because the remedial objectives only applied to TCE-contaminated groundwater recovery and treatment. However, the 2015 O&M Sampling & Analysis Plan designated levels of required performance for other site contaminants. Levels of required performance are based on the Texas Risk Reduction Program's (TRRP's) Tier 1 protective concentration levels (PCLs), which are calculated using a residential exposure scenario.

Table 2: Groundwater Contaminants' MCLs and Levels of Required Performance

Groundwater Contaminant	O&M Sampling & Analysis Plan Cleanup Goal (mg/L)	Basis
Benzene	0.005	Tier 1 PCL
1,1-Dichloroethylene	0.007	Tier 1 PCL
cis-1,2-Dichloroethylene	0.07	Tier 1 PCL
trans-1,2-Dichloroethylene	0.1	Tier 1 PCL
TCE (only contaminant of concern (COC) designated in the ROD)	0.005*	Federal MCL
Vinyl chloride	0.002	Tier 1 PCL
Total PCBs	0.0005	Tier 1 PCL

Notes:
* Cleanup goal modified by 1993 ESD.
mg/L = milligrams per liter
Source: 2015 O&M Sampling & Analysis Plan

As part of operation of the groundwater recovery and treatment system, treated water is stored in large holding tanks until analysis of treated water confirms it passed the discharge criteria. Once this is confirmed, treated water is discharged to the HCFCC adjacent to the Site. Recovered dense non-aqueous phase liquid (DNAPL) is stored in drums until it is picked up for off-site disposal. Table 3 contains a list of the treated water criteria contaminants that are analyzed before discharge. Effluent discharge action levels are based on EPA's effluent guidelines for organic chemicals, the Texas Water Quality Standards and the Texas Pollutant Discharge Elimination System General Permit TXG830000. Repairs to the groundwater recovery and treatment system during the FYR period included repairing leaking pipelines and replacing check valves, inoperable pumps, electrical pumps, recovery

well pumps, the front gate, fencing, transfer pumps and lights. TCEQ mows the cap about twice a year. Several routine maintenance activities have taken place in the past five years to improve the groundwater recovery and treatment system. In 2015, TCEQ replaced two of the clean water storage tanks with two tanks with larger volumes. TCEQ also installed a telemetry system in the groundwater recovery and treatment building to send automated messages for unscheduled system shutdowns in 2016. Other activities included refurbishing the two oil/water separator tanks and repairing leaks. Any leaked contaminated groundwater is captured by a sump in the groundwater treatment building. During the FYR period, there were several instances when the groundwater recovery and treatment system was not operational, generally a few months at a time due to repairs, system upgrades and weather events. Historical data indicate that the slurry wall can maintain an inward hydraulic gradient in the 30-foot sand after the recovery wells are shut down for three months or longer. The data review section provides more information.

Table 3: Effluent Discharge Action Levels

Groundwater Contaminant	Action Level (mg/L)
Benzene	0.057
trans-1,2-dichloroethylene	0.025
TCE	0.026
Vinyl chloride	0.024
Total PCBs	0.002
Total organic carbon	75
Oil and grease	15
Potential hydrogen	6 to 9

The 1986 ROD estimated annual O&M costs for operation of the groundwater recovery and treatment system at $426,000 until remediation of the 100-foot sand has been completed. Once this has been completed, the ROD reduced estimated annual O&M costs to $375,000 until remediation of the TCE plume in the 30-foot sand has been completed. The ROD did not separate out capital costs and O&M costs for maintenance of the capped area, but the average annual O&M cost over the FYR period is $228,800, well below the ROD estimate. In 2015, O&M costs were $463,000, which can be attributed to development of the 2015 O&M Sampling & Analysis Plan and large equipment replacements.

III. PROGRESS SINCE THE PREVIOUS REVIEW

This section includes the protectiveness determinations and statements from the previous FYR as well as the recommendations from the previous FYR and the status of those recommendations.

Table 4: Protectiveness Determinations/Statements from the 2013 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1	Protective	The remedy for OU1 concerning contaminated soil at the Geneva site is protective of human health and the environment because the waste has been removed or contained and is protected from erosion.
2	Short-term Protective	The remedy for OU2 concerning contaminated groundwater is protective of human health and the environment in the short term because there is no evidence that there is current exposure. Twenty-one issues were identified which need to be addressed for the remedy to remain protective for the long term, and the recommendations and follow-up actions listed in Section 9 should be implemented to address these issues. In addition to the recommendations in Section 9, site operations and implementation of performance and compliance monitoring should continue.
Sitewide	Short-term Protective	Because the completed remedial actions and monitoring program for the Geneva site are protective for the short term, the remedy for the site is protective of human health and the environment and will continue to be protective if the action items identified in this report are addressed.

Table 5: Status of Recommendations from the 2013 FYR

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
2	PCB concentrations exceed the MCL and are increasing in the 100-foot sand unit.	An investigation of the possible mechanisms for PCBs entering the deeper water-bearing units should be conducted with the goal of mitigating the downward migration of PCB from the 30-foot sand unit. The investigation should include the possibility that the deep monitoring wells are the source of the downward migration of PCBs.	Ongoing	Through TCEQ's review of historical documents and data, TCEQ has determined that PCBs in the 100-foot sands predated implementation of the groundwater remedy and that continuing sources of contamination exist at the Site. Lapses in O&M did not contribute to PCBs entering the 100-foot sands. EPA will develop an updated conceptual site model and conduct an optimization review of the Site's remedy.	Not Applicable
2	No cleanup criteria have been established for PCBs in the groundwater in the ROD.	The ROD should be amended with an ESD or ROD amendment to include cleanup criteria for PCBs in groundwater.	Ongoing	EPA will implement a decision document as needed based on findings from the optimization review.	Not Applicable
2	There is no remediation or containment of PCB-contaminated groundwater in the 100-foot sand unit.	Recovery and treatment of PCB-contaminated groundwater in the 100-foot sand unit should be conducted to prevent the further migration of PCBs.	Ongoing	EPA will develop an updated conceptual site model and conduct an optimization review to determine if vertical migration of contaminants is occurring from the 30-foot sand unit to the 100-foot sand unit.	Not Applicable

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
2	There is insufficient treatment plant capacity to treat pumped groundwater from the 30-foot sand and 100-foot sand units.	The capacity of the treatment plant needs to be increased. An optimization study should be conducted to determine the best method of increasing plant capacity.	Completed	TCEQ completed a treatment plant capacity increase through replacing recovery well pumps in August 2015.	08/26/2015
2	There has been sporadic operation of the recovery/treatment system and groundwater elevation gauging during the review period.	The recovery/treatment system needs to be operated on a consistent basis to maintain an inward gradient of the contaminated 30-foot sand unit within the slurry wall to prevent migration of contaminants off site. Groundwater elevation gauging is needed at least quarterly, as recommended in the last FYR, to confirm the inward gradient is being maintained.	Completed	Consistent operation of the recovery/treatment system was initiated in 2015 following renovations to the treatment system. Groundwater elevation gauging is being conducted semi-annually and was conducted quarterly during 2017.	08/26/2015
2	PCB concentrations appear to be increasing in MW-24 at the eastern boundary of the Site in the 100-foot sand unit and PCB-contaminated groundwater may be leaving site boundaries at levels exceeding the MCL.	Verify that no groundwater use is occurring in the 100-foot sand unit in the area of MW-24. If PCB concentrations continue to exceed the MCL at MW-24, consideration should be given to installing additional groundwater monitoring wells downgradient of MW-24.	Completed	The Drinking Water Survey Report (August 2016) indicated there were three domestic wells located within a quarter mile of the Site in the northwest and southwest directions. One of these wells is inactive and the other two were private wells for mobile homes and are most likely no longer in use as the mobile homes are gone and a new hotel has been constructed where the wells used to be.	8/31/2016
2	Institutional controls mandated in the 2007 ESD have not been implemented at the Site.	Implement institutional controls as mandated in the 2007 ESD.	Completed	TCEQ filed deed notices with the county clerk in August 2015.	8/28/2015

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
2	Groundwater contained within the slurry wall in the 30-foot sand is contaminated with VOCs, benzene, toluene, ethylbenzene, xylene and TCE. The treatment system building is adjacent to the slurry wall on site and there is a possibility of vapor intrusion in the building at levels above those protective of human health.	A vapor intrusion screen should be performed on the site treatment system building.	Completed	EPA completed a vapor intrusion screening assessment and found no current exposure pathways.	9/06/2016
2	Due to the shallow depth to groundwater of the 30-foot sand unit along the eastern boundary of the Site and the detected contaminants in MW-26, there is a possibility that contaminated groundwater from the 30-foot sand unit has discharged into the Harris County flood control channel.	An evaluation of the potential for contaminated groundwater from the site to discharge to the Harris County flood control channel should be conducted. If there is a potential for this to occur, sampling and analysis of the channel sediments and surface water for site contaminants should be conducted to verify the sediments and surface water are protective of human health and the environment.	Ongoing	EPA will develop an updated conceptual site model and determine if there is additional work required to determine if there is contamination near MW-26 and if it is discharging contaminated groundwater to the HCFCC.	NA
2	Based on current information showing the groundwater flow direction in the 100-foot sand unit is to the north, there may be insufficient groundwater monitoring along the northern boundary of the Site.	An evaluation should be made of the groundwater flow direction in the 100-foot sand unit, and a determination made as to the sufficiency of the number and location of monitoring wells along the northern boundary of the Site.	Completed	The direction of groundwater flow in the 100-foot sands under and next to the Site is to the northwest, as documented in the August 2015 O&M Report. Based on current data, the number and location of monitoring wells may not be sufficient along the northern boundary. EPA will develop an updated conceptual site model and conduct an optimization review and determine if additional deep-zone monitoring wells are needed along the northern boundary.	8/26/2015

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
2	None of the monitoring wells have locks on the casing covers. The old recovery wells (RW-01 through RW-05 and RW-7 through RW-10) now used as piezometers do not have caps. Monitoring wells MW-02, MW-23 and MW-25 are missing bollards.	Monitoring wells should be locked and missing well caps and bollards should be replaced.	Completed	TCEQ fitted all monitoring wells with locks and replaced missing well caps and bollards.	8/31/2016
2	Two monitoring wells, MW-18 and MW-02, were identified during the site inspection as being lost or abandoned.	A review of past monitoring wells used at the Site should be conducted and wells that are no longer needed should be identified, located, and properly plugged and abandoned.	Completed	TCEQ determined that there are no monitoring wells that need to be plugged and abandoned at this time.	1/13/2016
2	No O&M log was found during the site inspection.	An O&M log should be maintained for the Site.	Completed	The updated O&M Manual contains a provision about maintaining an O&M log and one is maintained.	5/31/2015
2	The soil has eroded out from beneath the well pad at RW-03.	Soil erosion under well RW-03 well pad should be repaired.	Completed	TCEQ repaired soil erosion under the well RW-03 well pad.	8/31/2016
2	East of the deep monitoring wells, brackets holding the conduits on the stands have failed.	Brackets holding the conduits on the stands east of the deep monitoring wells should be repaired to hold the conduits on the stands.	Completed	TCEQ replaced brackets holding the conduits on the stands east of the deep monitoring wells.	8/31/2016
2	Fire ant mounds were observed on the cap, which could create a conduit between the ground surface and the buried wastes.	The fire ant mounds on the cap should be mitigated.	Completed	TCEQ mitigated fire ant mounds and none were observed during the 2017 site inspection.	8/31/2016
2	Site documents are missing from the local site information repository, the M.D. Anderson Library at the main campus of the University of Houston.	All site decision documents and past FYR reports should be available for public review at the M.D. Anderson Library.	Completed	EPA sent all site-related documents to the M.D. Anderson Library.	4/5/2018

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
2	The March 31, 2009 sample from the clean water storage tanks exceeded the PCB discharge criteria. The water was resampled on April 30, 2009 and was reported to meet the discharge criteria. This review was unable to confirm that the resampled results met the discharge criteria because the analytical results were not provided.	Copies of the analytical sampling reports should be retained to provide verification that discharge criteria are being met.	Completed	TCEQ emailed EPA on April 7, 2016, stating that analytical sampling reports are retained, either in electronic or paper format, per the Superfund Sections Standard Operating Procedure on records, issued September 21, 2015. Monthly O&M reports contain records of effluent discharge sampling reports.	4/07/2016
2	There is erosion control fabric exposed at the surface at the toe of the cap at the southeast corner.	Erosion control fabric exposed at the surface at the toe of the southeast corner of the cap should be covered with soil and grass.	Completed	TCEQ covered erosion control fabric with soil and grass at the toe of the southeast corner of the cap.	8/31/2016
2	The grate covering the floor drainage channel in the treatment plant is bent and presents a tripping hazard.	The bent grate covering the floor drainage in the treatment plant should be replaced or repaired.	Completed	TCEQ replaced the bent grate covering the floor in the treatment plant.	8/31/2016
2	Currently reported well depths given for MW-101 and MW-102 do not match the depths given in the original 1985 well schematics, and it appears the labels for these two wells have been switched at some point in the past. The labels for the other two deep wells, MW-103 and MW-104, may also have been switched.	The depths of the deep monitoring wells MW-101, -102, -103 and -104 should be gauged to verify the currently reported depths are correct.	Completed	The depths of MW-101, -102, and -104 were gauged in June 2014, as documented in the Annual Groundwater Monitoring Report. The depth of MW-103 could not be gauged due to the presence of the down-hole pump and was estimated based on the well log and depth of the pump.	6/31/2014

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Community Involvement and Site Interviews

A public notice was made available by a newspaper posting in the *Houston Chronicle* Spanish insert and the *Houston Chronicle* on 10/1/2017 and 10/2/2017, respectively (Appendix C). It stated that the FYR was underway and invited the public to submit any comments to EPA. The results of the review and the report will be made available at the Site's information repository, the University of Houston's M.D. Anderson Library, located at 4333 University Drive, in Houston, Texas.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy implemented to date. Interviews were completed with Midori Campbell of TCEQ (TCEQ Project Manager), Marc Viola of Aptim (O&M contractor), representatives from two nearby businesses and a church, and three residents. The interviews are summarized below. Complete interviews are in Appendix G.

The local interviewees did not report any concerns with the Site. The interviewees' homes, businesses and church are connected to city water. The business owners, the church representative and one resident expressed that they would like to be informed of site activities through some type of fact sheet. The other two residents stated that they prefer being informed of site activities in person.

Midori Campbell (TCEQ) stated that more work will be necessary in the future to ensure that the Site's remedy is protective of human health and the environment. Ms. Campbell stated that the groundwater remedy is not performing as designed and may not be protective of human health and the environment. TCEQ has clarified that Ms. Campbell's comments were made regarding the long term protectiveness of human health and the environment, not the short term protectiveness. TCEQ agrees with the protectiveness determination in the short term for OU2 because there are no active private or public wells located within a half mile of the Site and therefore there are no current groundwater receptors. Mr. Viola (O&M contractor) believes that current O&M procedures are effective at treating the pumped groundwater and maintaining an inward hydraulic gradient. He stated that PCBs and vinyl chloride detected above their PCLs in the deep zone and the presence of DNAPL in deep monitoring wells might indicate that the remedy is not effective in controlling the vertical migration of PCBs. He also mentioned that O&M activities have increased in frequency over the last five years due to the age of the treatment system. Mr. Viola recommends replacing the treatment system control panel to allow the adjustment of individual recovery pumps and the monitoring of critical functions to keep the system operational.

Data Review

Data reviewed for this FYR included:

- Groundwater elevation data from July 2013 to August 2017.
- Groundwater monitoring data from July 2013 to August 2017.
- DNAPL monitoring data from December 2016 to August 2017.
- Effluent discharge data from July 2013 to August 2017.

The purpose of the groundwater recovery and treatment system is to induce an inward hydraulic gradient, preventing contaminated groundwater from spreading out past the slurry walls, and to reduce groundwater contamination in both the 30-foot (shallow zone) and 100-foot (deep zone) sands. Groundwater monitoring data are collected to determine whether groundwater contaminant concentrations are decreasing or increasing and to detect contaminants above their respective MCL and PCLs. It should be noted that the 1986 ROD only lists TCE with a standard cleanup goal, the federal MCL for TCE. TCEQ conducts additional monitoring of contaminants identified during the RI/FS that caused EPA and TCEQ to reassess the original conceptual site model. A summary of these data is presented below. Figure 3 contains a detailed map of site features.

Groundwater Elevations

Groundwater elevation data are collected within the shallow zone both inside and outside the slurry wall to verify that the inward hydraulic gradient is being maintained (i.e., that groundwater elevations are lower inside the wall than outside the wall). Potentiometric maps for the shallow zone were reviewed to determine if groundwater elevations and the difference in groundwater elevations inside and outside the slurry wall were maintained. Throughout the FYR period, groundwater elevations were consistently lower within the slurry wall, indicating that an inward hydraulic gradient was maintained. Table 6 lists gauging event data for the shallow zone during the last four quarterly gauging events (quarterly sampling only occurred in 2017 as a result of quarterly DNAPL sampling). Appendix F provides the most recent shallow zone potentiometric map.

Table 6: Fiscal Year 2017 Quarterly Gauging Events in the Shallow Zone

Gauging Event	Average Groundwater Elevation Inside Slurry Wall (feet msl)*	Average Groundwater Elevation Outside Slurry Wall (feet msl)*	Static Groundwater Difference (feet msl)
December 2016	16.78	22.34	-5.56
March 2017	17.34	23.19	-5.85
June 2017	16.25	23.29	-7.04
August 2017	15.94	22.21	-6.27
Notes: * = average groundwater elevations calculated by TCEQ contractor in the 2017 Quarterly Groundwater and DNAPL Gauging Reports			

Groundwater elevation data in the deep zone are collected to monitor groundwater flow direction. During the most recent monitoring event, groundwater in the deep zone appears to be flowing north or northwest. Generally, groundwater flow in the deep zone has varied over this FYR period, ranging from west to north. There are limited deep zone wells from which to infer groundwater flow direction. The conceptual site model will be updated for the deep zone to clarify groundwater flow conditions in the deep zone. Appendix F provides the most recent deep-zone potentiometric map.

Groundwater Monitoring

Groundwater monitoring data are collected from the shallow and deep zones to determine whether groundwater contaminant concentrations are decreasing or increasing and to detect contaminants above their respective MCLs and PCLs (Table 2). As noted earlier, TCE is the only contaminant with a standard cleanup goal set forth in the 1986 ROD and modified by the 1993 ESD. Both the shallow and deep monitoring wells are sampled for TCE contamination, as well as deeper monitoring wells MW-102, MW-103 and MW-104, which have depths of 296 feet, 675 feet and 850 feet, respectively.[1] MW-102 and MW-103 are located in the underlying drinking water aquifer. Since groundwater monitoring began in January 2005, TCE has only been detected above its federal MCL at MW-26, with the most recent occurrence in January 2009. During the FYR period, TCE was only detected above detection limits once in January 2013 with a concentration of 0.0011 mg/L.

Additional Analytes/Performance Monitoring

Shallow and deep zone monitoring wells, as well as deeper monitoring wells MW-102, MW-103 and MW-104, are also sampled for benzene, cis-1.2-dichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethylene, vinyl chloride and total PCBs.

In the shallow zone, four groundwater monitoring wells – MW-10, MW-11, MW-17 and MW-26 – are sampled during each sampling event. All wells are located outside the slurry wall, as the presence of DNAPL within the slurry wall does not allow for sampling within the slurry wall. PCL exceedances occurred for benzene, vinyl chloride and total PCBs during the FYR period (Table 7). Historically, PCBs have been detected consistently at MW-26, which is located adjacent to the HCFCC. The PCB concentrations at MW-26 may indicate PCB contamination has migrated outside the slurry wall or that a residual source area is present in this area. Generally, total PCB concentrations have decreased slightly at MW-26 during this FYR period. The conceptual site model will be updated for the shallow zone to determine the cause of this PCB contamination. Historically, concentrations for other contaminants monitored in the shallow zone have been stable and below PCLs and detection limits. However, 1,2-dichloroethylene was detected above its detection limit, but below its PCL, at MW-26 in July 2013, January 2016 and December 2016 with concentrations of 0.0124, 0.0013 and 0.0014 mg/L, respectively. There were no PCL exceedances observed in the most recent monitoring event in June 2017. Appendix F contains cumulative groundwater monitoring data.

[1] In July 2014, gauging data found that what was thought to be MW-101 was actually MW-104, what was thought to be MW-102 was actually MW-101, and what was thought to be MW-104 was actually MW-102. This information is reflected in the data review section.

Table 7: Shallow Zone Monitoring Well Exceedances, 2013 – 2017

Monitoring Well	Date	Benzene (mg/L) PCL = 0.005 mg/L	Vinyl Chloride (mg/L) PCL = 0.002 mg/L	Total PCBs (mg/L) PCL = 0.0005 mg/L
MW-10	December 2016	--	--	0.00051 J
MW-26	July 2013	0.0101	0.0157	0.0075
	July 2014	--	--	0.0063
	January 2016	--	0.0022	0.0032
	December 2016	--	--	0.0034

Notes:
-- = PCL not exceeded
J = result is an estimated value
Source: 2013-2017 Annual and Semi-Annual Groundwater Monitoring Reports

In the deep zone, six groundwater monitoring wells are sampled during each sampling event. These monitoring wells include MW-8, MW-22, MW-23, MW-24, MW-25 and MW-101. Two monitoring wells in the underlying drinking water aquifer (MW-102 and MW-103) are also sampled during each sampling event. PCL exceedances were observed for vinyl chloride and total PCBs during the FYR period. Vinyl chloride exceeded its PCL of 0.002 mg/L at monitoring wells MW-24 and MW-101. The maximum concentration of vinyl chloride at each of these wells during each year of the FYR period are provided in Table 8.

Table 8: Maximum Detected Vinyl Chloride Concentrations at Select Wells, 2013 – 2017

Monitoring Well	2013	2014	2015	2016	2017
MW-24	IS	**0.0115 J**	**0.0084 J**	**0.0099**	0.00030
MW-101	**0.0047 J**	**0.0040 J**	**0.0031 J**	**0.0039**	0.0014

Notes:
All concentrations reported in mg/L
IS = Invalidated Sample
J = result is an estimated value
Bold = exceeds PCL of 0.002 mg/L
Source: 2013-2017 Annual and Semi-Annual Groundwater Monitoring Reports

Vinyl chloride exceeded its PCL four times at MW-24, with a maximum concentration of 0.0115 J mg/L in January 2014. However, it was not detected above the PCL during the two most recent monitoring events (December 2016 and June 2017). Historically, vinyl chloride was below its detection limit of 0.0003 mg/L at MW-101. Since July 2013, vinyl chloride was detected above the PCL in four out of the five most recent sampling events, with a maximum concentration of 0.0047 J mg/L in July 2013. Vinyl chloride was below the PCL in June 2017. Fluctuations in vinyl chloride concentrations may be due to residual sources of TCE contamination in the vicinity of MW-24 and MW-101, as vinyl chloride is one of its breakdown products.

Total PCBs exceeded their PCL of 0.0005 mg/L in eight deep monitoring wells during the FYR period. These monitoring wells included MW-8, MW-22, MW-23, MW-24, MW-25, MW-101, MW-102 and MW-103. The maximum concentration of total PCBs at each of these wells during each year of the FYR period are provided in Table 9.

Table 9: Maximum Detected Total PCBs Concentrations at Select Wells, 2013 – 2017

Monitoring Well	2013	2014	2015	2016	2017
MW-8	ND	ND	**0.0011**	**0.00108 J**	0.00036
MW-22	ND	**0.00060**	**0.0012**	**0.00072 J**	**0.00068**
MW-23	ND	**0.00057**	ND	**0.00325**	ND
MW-24	**0.0076**	**14.3**	**0.017**	**0.0404**	ND
MW-25	ND	ND	ND	**0.0025**	ND
MW-101	**1.87 JI-FD**	**0.528**	**0.394**	**1.91**	**0.204**
MW-102	ND	ND	**0.0225**	ND	ND
MW-103	ND	NS	ND	ND	**0.0049**

Notes:
All concentrations reported in mg/L
ND = not detected above laboratory detection limit
NS = not sampled
J = result is an estimated value
I = result bias was indeterminate
FD = field duplicate
Bold = exceeds PCL of 0.0005 mg/L
Source: 2013-2017 Annual and Semi-Annual Groundwater Monitoring Reports

Total PCB concentrations at several wells increased to above the PCL during this FYR. In 2013, two wells exceeded the PCL for total PCBs. In 2016, six wells had concentrations that exceeded the PCL for total PCBs. Based on these data, the extent of groundwater contamination within the deep zone appears to be expanding. In addition, since about 2011, variations of PCB concentrations at MW-101 have been observed, but have all exceeded the PCL of 0.0005 mg/L. Droplets of DNAPL were observed at MW-101 during the January 2016 sampling event, which may indicate MW-101 or the cluster of deep wells surrounding MW-101 are potential preferential pathways for vertical DNAPL migration from the shallow zone. This observation is further supported by first-time occurrences of total PCBs in MW-103 (depth of 675 feet). Based on the apparent groundwater flow direction to the north/northwest, every downgradient deep-zone monitoring exceeded the total PCBs PCL during this FYR period. The deep-zone total PCB plume may be expanding and has not been defined on site or off site. The extent of the deep zone groundwater plume and PCB and vinyl chloride contamination, as well as whether the cluster of deep wells are preferential pathways will be addressed in the updated conceptual site model in the optimization review. Appendix F provides cumulative groundwater monitoring data.

DNAPL Gauging

Because of the observation of DNAPL in MW-101 during the January 2016 sampling event, TCEQ began quarterly DNAPL gauging to determine the extent, depth and amount of DNAPL in the shallow zone. During the four quarterly sampling events in 2017, DNAPL was observed in recovery wells RW-1, RW-2, RW-3, RW-4, RW-5 and RW-10. DNAPL was not observed in recovery wells RW-7, RW-8 and RW-9. An attempt to gauge RW-6 was made. However, the presence of a pump mounted to the top of the well prevented the oil/water interface probe from reaching the bottom of the well.

During the third quarterly sampling event (June 2017), RW-3 contained a measurable thickness of DNAPL for the first time since May 2016, which was observed again during the fourth quarterly sampling event (August 2017). This increase in DNAPL could indicate that the plume is expanding to the southeast. During the four quarterly sampling events in 2017, RW-10 had the highest measurable thickness in each sampling event, with a maximum thickness of 12.92 feet in the second quarterly sampling event (March 2017). Based on the DNAPL thickness and soil lithology, TCEQ initially estimated there are about 1.12 million gallons of DNAPL potentially present in the shallow zone. TCEQ has since indicated that this estimate assumed that DNPAL is uniformly distributed throughout the shallow zone with a thickness of the average of measured thickness, which is most likely too conservative and has likely overestimated the DNPAL volume. Table 10 lists the range of DNAPL thickness

observed during each of the four quarterly sampling events in fiscal year 2017. TCEQ did not sample any of the deep zone wells for DNAPL during the FYR period. Appendix F provides the most recent DNAPL plume map.

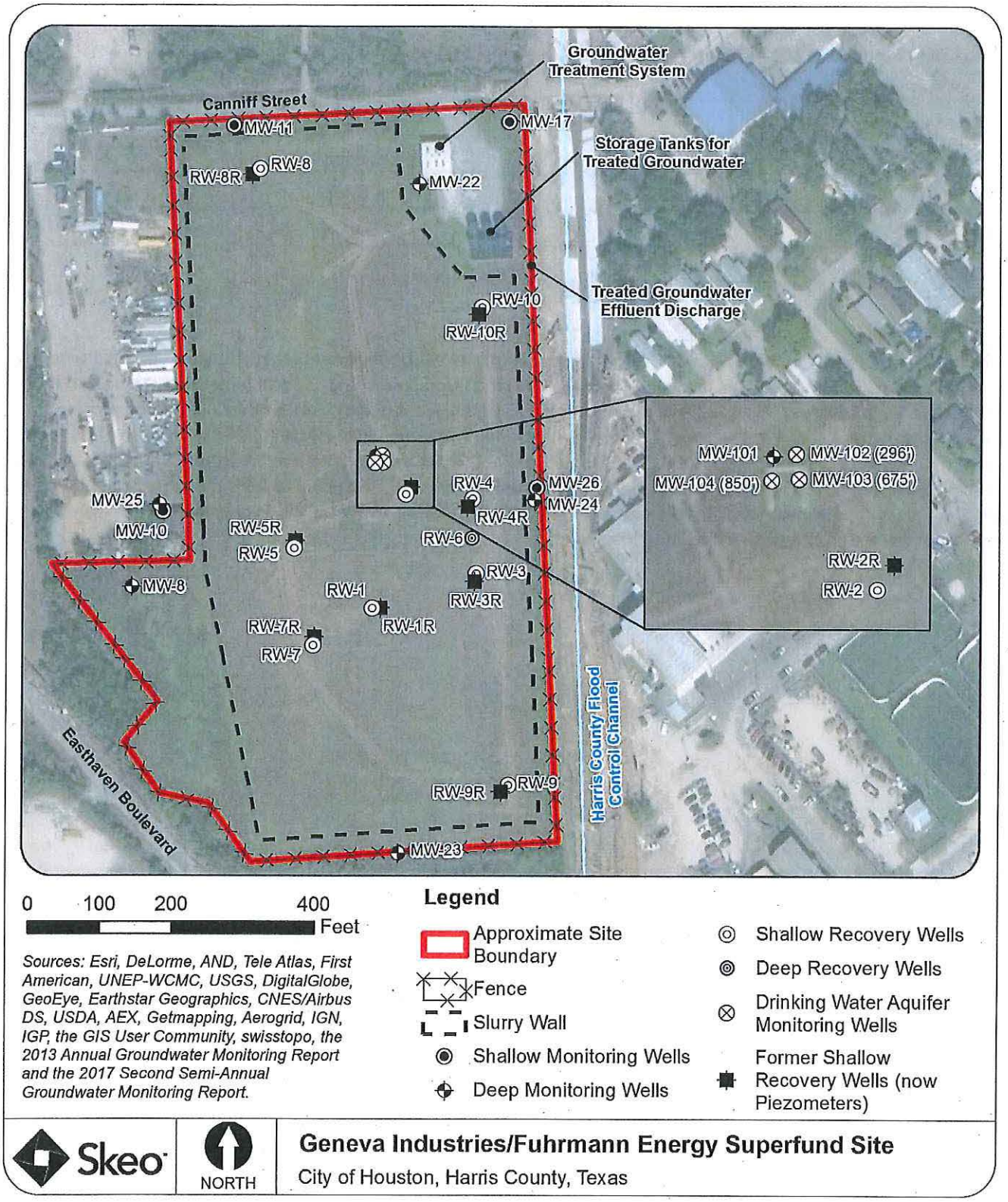
Table 10: Fiscal Year 2017 Quarterly DNAPL Gauging Thickness

Sampling Event	Range of DNAPL Thickness (feet)*
December 2016	3.00 - 11.75
March 2017	3.30 - 12.92
June 2017	0.4 - 12.18
August 2017	0.45 - 12.45
Notes: * DNAPL thickness presented in the 2017 Quarterly Groundwater and DNAPL Gauging Reports	

Effluent Discharge

When the groundwater recovery and treatment system is operational, treatment plant effluent is sampled monthly to verify treated water is meeting the established discharge criteria (see Table 3). When the samples exceed the discharge criteria, the water is retreated and resampled to ensure the discharge criteria are met. While the groundwater recovery and treatment system was operational, there was one effluent exceedance of total PCBs in June 2017, with a concentration of 0.0022 mg/L. The treated water was retreated and resampled in July 2017 and total PCBs declined to a concentration of 0.0014 mg/L before being discharged to the HCCFC. It should be noted that the treated groundwater effluent discharge action for total PCBs of 0.002 mg/L is considerably higher than the groundwater PCL for total PCBs of 0.0005 mg/L.

Figure 3: Detailed Site Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site.

Site Inspection

The site inspection took place on 10/03/2017. Participants included EPA RPM Stephen Pereira; Midori Campbell from TCEQ; Marc Viola, Andy Gilchrest and Michael Stevens from Aptim, the site O&M contractor; and Treat Suomi and Brice Robertson from Skeo, EPA contractor. The purpose of the inspection was to assess the protectiveness of the remedy. Appendix D contains a detailed site inspection checklist. Appendix E contains site inspection photos.

Participants met at the site entrance. Participants first discussed recent events and changes at the Site in the past five years. The Site did not experience much flooding from Hurricane Harvey and did not experience any serious damage to the cap or the rest of the Site. Mr. Viola mentioned that in 2016, DNAPLs were found during a clear bail of the wells. Participants then inspected the cap and monitoring wells. The vegetative cover was a little wet as it had recently rained, but properly established. All observed monitoring wells were labeled and locked. Mr. Viola performed a clear bail on RW-5 to show the presence of DNAPL in the 30-foot sand unit. He mentioned that there is an overall increase in DNAPL thickness since it was first observed.

There have been no trespassing or vandalism issues in the past five years. Participants then viewed the different parts of the groundwater treatment system. Overall, it is in good shape. However, it is getting older and some parts need to be replaced. Mr. Viola confirmed that they are going to replace the knockout tank soon and that separator tanks were refurbished earlier this year. There are some leaks during the treatment process. However, all leaked water is captured by a sump on the floor of the treatment system, so no contaminated water escapes. Treated water is held in storage tanks until it is confirmed that it has been treated to below cleanup goals and then is released into the adjacent drainage channel. Fencing was in good condition and there was adequate signage. The site entrance was also locked and secured upon arrival. Following the site inspection, participants interviewed several nearby residents and businesses. EPA and Skeo staff visited the site repository at the M.D. Anderson Library, located at 4333 University Drive in Houston. Because of Hurricane Harvey, the library's basement was completely flooded and was not open. The basement contains the reference section, so no site documents were accessible at the time of the site inspection. However, EPA sent all site-related documents to the library on 4/5/2018.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

OU1

The site inspection and review of documents and applicable or relevant and appropriate requirements (ARARs) indicate that the OU1 remedy is functioning as intended by site decision documents. Remedial activities completed under OU1 included removal and disposal of all former facilities, plugging and abandonment of unnecessary monitoring wells, excavation and off-site disposal of contaminated soils and most buried drums, construction of a slurry wall barrier around the Site with a pressure relief well system, and construction of a permanent protective cap across the site surface. As required by the 2007 ESD, TCEQ implemented institutional controls for OU1 that restrict digging on the capped area, activities that could disrupt the integrity of the cap and residential uses of affected properties. Fencing and warning signs deter potential trespassers. OU1 was deleted from the NPL in April 1997.

Although the removal criterion for soil was 100 ppm of total PCBs, there were two grids with soil residual PCB concentrations greater than 100 ppm and this soil is in direct contact with the 30-foot sand aquifer without any clay separation. Besides the contaminated soil, other materials like drums containing NAPLs were consolidated and left on site. Although the engineered cap reduced direct exposure to the contaminants in soils, the residual contaminants in soils may be continuously releasing to groundwater and increasing groundwater degradation. The conceptual site model is being updated and will help better understand site conditions and whether residual soil

contamination is affecting groundwater quality. Any additional issues related to remaining source materials contributing to possible groundwater contamination will be addressed by the update of the conceptual site model under OU2.

OU2

The site inspection and review of documents and ARARs indicate that the OU2 remedy is not functioning as intended. Although remedial actions specified in the ROD have been completed, groundwater elevation monitoring, groundwater contaminant monitoring, and DNAPL monitoring data over the FYR period indicate that site conditions might be different from previously thought. There may not be enough deep-zone groundwater monitoring wells to infer groundwater flow direction, PCB contamination may be outside the slurry wall near MW-26 and the HCFCC, the extent of groundwater contamination may be expanding in the deep zone, the cluster of deep wells surrounding MW-101 may be potential conduits for vertical contamination migration from the shallow zone, the DNAPL plume may be expanding to the southeast and may be migrating into the deep zone, and the presence of DNAPLs in the shallow zone is preventing groundwater monitoring in the shallow zone within the slurry wall in certain areas. Within the slurry wall, quarterly monitoring for DNAPL presence during 2017 showed that the DNAPL plume may be expanding to the southeast. TCEQ estimates there are about 1.12 million gallons of DNAPLs potentially present in the shallow zone. However, this is most likely an overestimate and the volume of DNPAL needs to be estimated more accurately. Generally, groundwater flow in the deep zone has varied over this FYR period, ranging from west to north; however, this is based on a limited deep zone well network. The conceptual site model for the Site needs to be updated to assess the current extent of groundwater contamination in the shallow and deep zones and contaminant transport pathways that exist at the Site. However, additional deep zone groundwater monitoring wells should not be installed within the slurry wall because they could serve as additional conduits for vertical migration of contaminants from the shallow zone to the deep zone.

Groundwater elevation data during the FYR period indicated that the inward hydraulic gradient is being maintained in the shallow groundwater zone. Although monitoring shows no exceedances of TCE, which is the ROD-specified contaminant, additional groundwater monitoring data over the past five years showed exceedances of several groundwater contaminants (benzene, vinyl chloride and total PCBs) in the shallow groundwater zone. Historically, PCBs have been detected consistently at MW-26, which is located outside the slurry wall and adjacent to the HCFCC. The PCB concentrations at MW-26 may indicate PCB contamination has migrated outside the slurry wall or that a residual source area is present in this area. Because the treated groundwater effluent discharge action level is much higher than the groundwater PCL for total PCBs, any crack or fissure in the HCFCC could lead to these exceedances. Generally, total PCB concentrations have decreased slightly at MW-26 during this FYR period. Historically, concentrations for other contaminants monitored in the shallow zone have been stable and below PCLs. Groundwater monitoring data from the past five years showed consistent exceedances of the vinyl chloride and total PCBs PCLs in the deep zone. Total PCB concentrations at several wells in the deep zone increased during this FYR period. Additionally, variations of PCB concentrations at MW-101 have been observed, but all have been above its PCL of 0.0005 mg/L since 2011. During the January 2016 sampling event, droplets of DNAPL were observed at MW-101, which may indicate MW-101 or the cluster of deep wells surrounding MW-101 are potential preferential pathways for vertical DNAPL migration from the shallow zone. These wells should be plugged and abandoned since they are most likely preferential pathways for vertical DNAPL migration from the shallow zone. Due to the presence of DNAPL in the shallow zone, it is not possible to monitor shallow groundwater contaminant concentrations within the slurry wall. EPA will conduct an optimization study to assess the remedy effectiveness and determination whether additional evaluations and/or activities are needed.

O&M activities are implemented by Aptim, as required by the 2015 O&M Plan. In the past five years, the groundwater recovery and treatment system has not been consistently operational due to routine maintenance, O&M work order preparations and flooding events. There has been one effluent sampling exceedance. Water with the exceedance was retreated; water not meeting the discharge criteria has never been discharged. Several routine maintenance activities have taken place during the FYR period, including refurbishing the oil/water separator tanks and repairing leaks in the system.

As required by the 2007 ESD, TCEQ implemented institutional controls at the Site in August 2015. These institutional controls prevent groundwater use from the 30-foot and 100-foot sands and installation of groundwater wells within the cap or landfill and residential use. The deed notice at property parcel 143A only notifies interested parties of contaminated groundwater beneath the property and restricts residential use.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of the remedy selection still valid?

Question B Summary:
No. The exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of the remedy selection are mostly still valid. Some RAOs identified in the 1986 ROD are being met, while some RAOs are not. The cap effectively prevents exposure to contaminated soils on site. However, based on current groundwater monitoring data, deeper groundwater units may be subject to contamination migrating from the shallow zone and groundwater contamination concentrations are increasing and expanding in the 100-foot sand. The soil cleanup goal for total PCBs, 100 mg/kg, was equivalent to a cancer risk of 1×10^{-4} for residential use in the 1986 ROD; however, the deed restrictions prohibit residential use. When compared to the current EPA regional screening level (RSL) for industrial use, the 1986 ROD cleanup goal for total PCBs is equivalent to 1×10^{-4} (Appendix H, Table H-1). As the only designated site contaminant, the federal MCL for TCE has not changed and is still valid as a cleanup goal.

Many of the exposure assumptions identified in the 1986 ROD remain unchanged, as the HCFCC ditch is a concrete lined ditch with only intermittent water and no aquatic organisms, the Site is not in use, and use of contaminated groundwater is prevented by institutional controls. EPA performed a vapor intrusion assessment in the past five years, which found no risk for on-site and off-site buildings and structures. PCBs were not identified as a COC in groundwater, however recent groundwater monitoring data have indicated the presence of PCBs in groundwater. Additional evaluation is needed to update the conceptual site model and determine whether additional activities are needed.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

On September 10, 2017, EPA performed soil and groundwater sampling to identify any potential contamination following Hurricane Harvey. The sampling found that post-hurricane conditions of soil and groundwater were consistent with historical site conditions before the hurricane made landfall. No other issues were reported at the Site as a result of the hurricane.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the FYR:
OU1

Issues and Recommendations Identified in the FYR:

OU(s): 2	**Issue Category:** Remedy Performance			
	Issue: Flow patterns and the extent of contamination in the deep zone are not well-defined, there may not be enough deep-zone groundwater monitoring wells to infer groundwater flow direction, and the DNAPL plume may be expanding to the southeast, may be migrating into the deep zone and its volume may not be accurately estimated. Additionally, TCE is the only designated COC, but there are other contaminants, including PCBs and vinyl chloride in groundwater, that continue to exceed their respective PCLs.			
	Recommendation: Develop an updated conceptual site model, determine if site conditions have changed since early investigations, and reevaluate site COCs. Additional deep zone groundwater monitoring wells should not be installed within the slurry wall because they could serve as additional conduits for vertical migration of contaminants from the shallow zone to the deep zone.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party/Support Agency**	**Milestone Date**
No	Yes	EPA/TCEQ	EPA/TCEQ	12/30/2019

OU(s): 2	**Issue Category:** Remedy Performance			
	Issue: PCB contamination may be outside the slurry wall near MW-26 and the HCFCC, the cluster of deep wells surrounding MW-101 may be potential conduits for vertical contamination migration from the shallow zone, and the presence of DNAPLs in the shallow zone is preventing groundwater monitoring in the shallow zone within the slurry wall.			
	Recommendation: Conduct an evaluation of PCBs remaining on site and determine whether additional actions are needed. The updated conceptual site model and optimization report will be used to assist in planning this activity. Deep zone monitoring wells within the slurry wall (MW-101, MW-102, MW-103 and MW-104) should be plugged and abandoned to avoid acting as conduits for vertical migration of contaminants from the shallow zone to the deep zone.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party/Support Agency**	**Milestone Date**
No	Yes	EPA/TCEQ	EPA/TCEQ	9/30/2020

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)	
Operable Unit: 1	*Protectiveness Determination:* Protective

Protectiveness Statement: The remedy at OU1 (source control - contaminated soils, drums and surface facilities) is protective of human health and the environment.

All surface facilities have been removed and disposed of, all unnecessary monitoring wells have been plugged and abandoned, contaminated soils with over 100 mg/kg PCBs have been excavated and disposed of, most buried drums have been excavated and disposed of, a slurry wall has been constructed around the Site to a depth of 30 feet preventing contaminated groundwater from leaving the Site, a permanent cap has been constructed over the site surface preventing exposure to remaining contaminated soils and buried drums, and institutional controls have been implemented that restrict digging or any disruptive activities on the capped area and restrict residential use of the Site.

Protectiveness Statement(s)	
Operable Unit: 2	*Protectiveness Determination:* Short-term Protective

Protectiveness Statement: The OU2 remedy for the Site's contaminated groundwater is currently protective of human health and the environment in the short term because a groundwater recovery and treatment system has been constructed and is operating; the inward hydraulic gradient and the slurry wall are preventing further degradation of off-site groundwater in the shallow groundwater unit; and institutional controls prevent groundwater use in the shallow and deep units on site, notify owners of contaminated groundwater on one off-site property, and prevent activities that could disturb components of the groundwater recovery and treatment system. However, in order for the remedy to be protective in the long term, the following actions need to be taken: update the conceptual site model and determine if site conditions have changed, reevaluate site COCs, conduct an evaluation of PCBs remaining on site to determine whether additional actions are needed and plug and abandon deep zone monitoring wells within the slurry wall.

Sitewide Protectiveness Statement
Protectiveness Determination: Short-term Protective

Protectiveness Statement: The sitewide remedy is currently protective of human health and the environment in the short term. OU1 remedial actions adequately addressed all potential exposure pathways from contaminated soils, buried drums and surface facilities. EPA deleted the OU1 portion of the remedy from the NPL in April 1997. OU2 remedial actions currently protect all potential exposure pathways in the short term. For the remedy to be protective over the long term, EPA needs to develop an updated conceptual site model, determine if site conditions have changed since early investigations, reevaluate site COCs, conduct an evaluation of PCBs remaining on site to determine if additional actions are needed and plug and abandon deep zone monitoring wells within the slurry wall.

VIII. NEXT REVIEW

The next FYR Report for the Geneva Industries/Fuhrmann Energy Superfund site is required five years from the completion date of this review.

APPENDICES

APPENDIX A – REFERENCE LIST

Annual Groundwater Monitoring Report, Fiscal Year 2013, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I (now Aptim) for TCEQ. August 30, 2013.

Annual Groundwater Monitoring Report, Fiscal Year 2014, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I (now Aptim) for TCEQ. August 30, 2014.

Annual Groundwater Monitoring Report, Fiscal Year 2016, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I (now Aptim) for TCEQ. August 30, 2016.

Feasibility Study, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. EPA Region 6. April 1986.

Fourth Five-Year Review Report, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. EPA Region 6. September 3, 2013.

Monthly O&M Reports, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by Aptim for TCEQ. July 2013-August 2017.

Operations and Maintenance Manual, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I Environmental & Infrastructure, Inc. (now Aptim) for TCEQ. May 2015.

Quarterly Groundwater and DNAPL Gauging Report, First Quarter, Fiscal Year 2017, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I Environmental & Infrastructure, Inc. (now Aptim) for TCEQ. April 21, 2017.

Quarterly Groundwater and DNAPL Gauging Report, Second Quarter, Fiscal Year 2017, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I Environmental & Infrastructure, Inc. (now Aptim) for TCEQ. June 5, 2017.

Quarterly Groundwater and DNAPL Gauging Report, Third Quarter, Fiscal Year 2017, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I Environmental & Infrastructure, Inc. (now Aptim) for TCEQ. August 17, 2017.

Quarterly Groundwater and DNAPL Gauging Report, Fourth Quarter, Fiscal Year 2017, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by Aptim for TCEQ. August 31, 2017.

Record of Decision, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. EPA Region 6. September 18, 1986.

Sampling & Analysis Plan for Operation and Maintenance Activities, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I Environmental & Infrastructure, Inc. (now Aptim) for TCEQ. May 2015.

Semi-Annual Groundwater Sampling Report, First Event, Fiscal Year 2017, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I (now Aptim) for TCEQ. April 21, 2017.

Semi-Annual Groundwater Sampling Report, Second Event, Fiscal Year 2017, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. Prepared by CB&I (now Aptim) for TCEQ. August 17, 2017.

Vapor Intrusion Screening Assessment Memorandum, Geneva Industries/Fuhrmann Energy Superfund Site, Houston, Texas. EPA Region 6. August 23, 2016.

APPENDIX B – SITE CHRONOLOGY

Table B-1: Site Chronology

Event	Date
A petrochemical production facility operated on site; operations included manufacture of PCBs	June 1967-September 1978
Site owners received several citations for unauthorized discharges of wastewater into the adjacent flood control channel	1970s
EPA conducted a preliminary site investigation and found significant PCB and other organics contamination in site soils, groundwater and sediment in the adjacent flood control channel	Early 1980s
EPA completed first emergency removal action, involving closure of site lagoons; excavation of contaminated drums, asbestos, soils and sludge; installation of a cap; and improvement of site drainage	February 1984
EPA completed second emergency removal action to plug abandoned wells	May 1984
EPA listed the Site on the NPL	September 21, 1984
EPA completed third emergency removal action to remove storage tank materials	September 1984
EPA initiated the Site's RI/FS	September 1984
EPA completed the Site's RI/FS	April 1986
EPA signed the Site's ROD	September 18, 1986
TCEQ began OU1 remedial activities	May 1988
TCEQ completed OU1 remedial activities	September 1990
TCEQ began OU2 remedial construction	December 1992
TCEQ completed OU2 remedial construction	April 1993
EPA issued the Site's first ESD and TCEQ began the treatment phase of OU2 remedial activities	July 1993
EPA completed the Preliminary Close-Out Report for OU1	September 14, 1993
TCEQ completed several major modifications to the groundwater recovery and treatment system	September 1994
EPA deleted OU1 from the NPL	April 8, 1997
EPA completed the Site's first FYR	April 1998
TCEQ terminated the first O&M contractor's contract due to them not upholding maintenance activities	October 1999
EPA completed the Site's second FYR	September 2003
TCEQ hired CB&I (now Aptim) to rebuild the groundwater recovery and treatment system and perform O&M activities	2004
EPA issued the second ESD for the Site	May 2007
EPA completed the Site's third FYR	September 2008
CB&I resumed regular groundwater pumping	2008
CB&I installed new groundwater recovery wells in the 30-foot sand	February 2011
EPA completed the Site's fourth FYR	September 2013
TCEQ updated the Site's O&M Manual and Sampling & Analysis Plan	May 2015
TCEQ implemented required institutional controls at the Site	August 28, 2015
Aptim discovered droplets of DNAPL in MW-101	January 2016
TCEQ began quarterly DNAPL monitoring and gauging	December 2016
Hurricane Harvey affected the Houston area	August 2017

APPENDIX C – PRESS NOTICES

Geneva Industries/Fuhrmann Energy Superfund Site
Fifth Five-Year Review
October 2017

The U.S. Environmental Protection Agency, Region 6 is conducting the fifth five-year review of remedy implementation and performance at the Geneva Industries/Fuhrmann Energy Superfund site in Houston, Texas. Prior to 1967, petroleum exploration and production activities took place on site. From 1967 to 1978, Geneva Industries operated a petrochemical production facility at the Site. Facility operations contaminated site soils, groundwater and surface water with hazardous chemicals.

The site is located in an industrial and residential area near Interstate Highway 45 and the William P. Hobby Airport. An EPA removal action from 1983 to 1984 mitigated immediate health risks. The site-wide remedy, selected by EPA in 1986 and updated in 1993 and 2007, included excavation and off-site disposal of contaminated soils, capping of residual waste, treatment of contaminated groundwater, and institutional controls. The five-year review will determine if the remedies are still protective of human health and the environment. The five-year review is scheduled for completion in September 2018.

The report will be made available to the public at the following local information repository or visit *https://www.epa.gov/superfund/geneva-industries*:

MD Anderson Library
4333 University Drive
Houston, Texas 77204-2000
(713) 743-9710

For press inquiries, please call (214) 665-2200. For more information about the site, please contact:

Stephen Pereira/Remedial Project Manager
(214) 665-3137
or 1-800-533-3508 (toll-free)
or by email at *pereira.stephen@epa.gov*

Edward Mekeel/Community Involvement Coordinator
(214) 665-2252
or 1-800-533-3508 (toll-free)
or by email at *mekeel.edward@epa.gov*

Midori Campbell/Texas Commission on Environmental Quality Project Manager
(512) 239-2077
or by email at *midori.campbell@tceq.texas.gov*

Geneva Industries/Fuhrmann Energy Superfund Site
La Quinta Revisión de Cinco Años
Octubre 2017

La Región 6 de la Agencia de Protección Ambiental de los Estados Unidos (EPA, por sus siglas en inglés), en cooperación con la Comisión de Calidad Ambiental de Tejas, llevará a cabo la quinta revisión de cinco años de la implementación y rendimiento del plan de limpieza del sitio Superfund (sitio) Industrias Geneva/Energía Fuhrmann en Houston, Tejas. Antes de 1967, las actividades de exploración y producción de petróleo ocurrieron en el sitio. Desde 1967 a 1978, Industrias Geneva operó una instalación de producción de petróleo. Las operaciones del sitio contaminaron los suelos, las aguas subterráneas y las aguas superficiales con químicos peligrosos.

El sitio está localizado en un área industrial y residencial cerca de la autopista interestatal 45 y el aeropuerto de William P. Hobby. Una acción de eliminación de EPA desde 1983 a 1984 mitigó riesgos inmediatos de salud. El remedio del sitio, seleccionado por la EPA en 1986 y actualizado en 1993 y 2007, incluyó excavación y eliminación fuera del sitio de los suelos contaminados, cubrimiento residuos residuales, tratamiento de las aguas subterráneas contaminadas, e implementación de los controles institucionales. La revisión de cinco años determinará si la limpieza sigue protegiendo la salud humana y el medio ambiente. La revisión de cinco años está prevista para septiembre de 2018.

El informe se pondrá a la disposición del público en los siguientes repositorios locales de información:

La Biblioteca de MD Anderson
4333 University Drive
Houston, Tejas 77204-2000
(713) 743-9710

Actualizaciones del estado del sitio Superfund están disponibles en Internet en
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0602809

Todas las preguntas de los medios deben dirigirse a la Oficina de la Prensa de la EPA al (214) 665-2200

Para obtener más información sobre el sitio, por favor contacte a:

Stephen Pereira/ Gerente de Proyecto de Limpieza
(214) 665-3137
o 1-800-533-3508 (número gratuito)
o por correo electrónico a *pereira.stephen@epa.gov*

Edward McKeel/ Coordinador de Participación Comunitaria
(214) 665-2252
o 1-800-533-3508 (número gratuito)
o por correo electrónico a *mckeel.edward@epa.gov*

Midori Campbell/Gerente de Proyecto para la Comisión de Tejas para Calidad Ambiental
(512) 239-2077
o por correo electrónico a *midori.campbell@tceq.texas.gov*

APPENDIX D – SITE INSPECTION CHECKLIST

FIVE-YEAR REVIEW SITE INSPECTION CHECKLIST

I. SITE INFORMATION

Site Name: Geneva Industries/Fuhrmann Energy	**Date of Inspection:** 10/03/2017
Location and Region: Houston, TX Region 6	**EPA ID: TXD980748453**
Agency, Office or Company Leading the Five-Year Review: EPA	**Weather/Temperature:** Cloudy and humid/80s

Remedy Includes: (Check all that apply)

- ☒ Landfill cover/containment
- ☐ Access controls
- ☒ Institutional controls
- ☒ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Monitored natural attenuation
- ☒ Groundwater containment
- ☒ Vertical barrier walls
- ☒ Other: Excavation of contaminated soils and buried drums with disposal at an EPA-approved off-site facility.

Attachments: ☒ Inspection team roster attached ☐ Site map attached

II. INTERVIEWS (check all that apply)

1. **O&M Site Manager** Marc Viola (Name) | Project Manager (Title) | 12/28/2017 (Date)
   Interviewed ☐ at site ☒ at office ☐ by phone Phone: _____
   Problems, suggestions ☒ Report attached: Yes

2. **O&M Staff** Michael Stevens (Name) | Junior Associate (Title) | _____ (Date)
   Interviewed ☐ at site ☐ at office ☐ by phone Phone: _____
   Problems/suggestions ☐ Report attached: _____

3. **Local Regulatory Authorities and Response Agencies** (i.e., state and tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices). Fill in all that apply.

   Agency EPA
   Contact Stephen Pereira (Name) | Remedial Project Manager (Title) | _____ (Date) | _____ (Phone No.)
   Problems/suggestions ☐ Report attached: _____

   Agency TCEQ
   Contact Midori Campbell (Name) | Project Manager (Title) | 12/18/2017 (Date) | _____ (Phone No.)
   Problems/suggestions ☐ Report attached: _____

   Agency _____
   Contact _____ (Name) | _____ (Title) | _____ (Date) | _____ (Phone No.)
   Problems/suggestions ☐ Report attached: _____

   Agency _____
   Contact _____ (Name) | _____ (Title) | _____ (Date) | _____ (Phone No.)

Name	Title	Date	Phone No.
Problems/suggestions ☐ Report attached: _____			
Agency _____			
Contact _____	_____	_____	_____
Name	Title	Date	Phone No.
Problems/suggestions ☐ Report attached: _____			

4. **Other Interviews** (optional) ☐ Report attached: _____

Residents

III. ON-SITE DOCUMENTS AND RECORDS VERIFIED (check all that apply)

1. **O&M Documents**

☒ O&M manual	☒ Readily available	☒ Up to date	☐ N/A
☒ As-built drawings	☒ Readily available	☒ Up to date	☐ N/A
☒ Maintenance logs	☒ Readily available	☐ Up to date	☐ N/A

Remarks: _____

2. **Site-Specific Health and Safety Plan** ☒ Readily available ☒ Up to date ☐ N/A

☒ Contingency plan/emergency response plan ☒ Readily available ☐ Up to date ☐ N/A

Remarks: The site-specific Health and Safety Plan was updated in 2017.

3. **O&M and OSHA Training Records** ☒ Readily available ☒ Up to date ☐ N/A

Remarks: _____

4. **Permits and Service Agreements**

☐ Air discharge permit	☐ Readily available	☐ Up to date	☒ N/A
☒ Effluent discharge	☒ Readily available	☒ Up to date	☐ N/A
☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☒ N/A
☐ Other permits: _____	☐ Readily available	☐ Up to date	☒ N/A

Remarks: _____

5. **Gas Generation Records** ☐ Readily available ☐ Up to date ☒ N/A

Remarks: _____

6. **Settlement Monument Records** ☐ Readily available ☐ Up to date ☒ N/A

Remarks: _____

7. **Groundwater Monitoring Records** ☒ Readily available ☒ Up to date ☐ N/A

Remarks: _____

8. **Leachate Extraction Records** ☐ Readily available ☐ Up to date ☒ N/A

Remarks: _____

9. **Discharge Compliance Records**

☐ Air	☐ Readily available	☐ Up to date	☒ N/A
☒ Water (effluent)	☒ Readily available	☒ Up to date	☐ N/A

Remarks: _____

10. **Daily Access/Security Logs** ☒ Readily available ☒ Up to date ☐ N/A

Remarks: _____

IV. O&M COSTS

1. **O&M Organization**

☐ State in-house ☒ Contractor for state

☐ PRP in-house ☐ Contractor for PRP

☐ Federal facility in-house ☐ Contractor for Federal facility

☐ _____

2. **O&M Cost Records**

☒ Readily available ☒ Up to date

☐ Funding mechanism/agreement in place ☐ Unavailable

Original O&M cost estimate: _____ ☐ Breakdown attached

Total annual cost by year for review period if available

From: 09/01/2012 Date	To: 08/31/2013 Date	$138,994.97 Total cost	☐ Breakdown attached
From: 09/01/2013 Date	To: 08/31/2014 Date	$275,112.09 Total cost	☐ Breakdown attached
From: 09/01/2014 Date	To: 08/31/2015 Date	$463,043.57 Total cost	☐ Breakdown attached
From: 09/01/2015 Date	To: 08/31/2016 Date	$111,599.86 Total cost	☐ Breakdown attached
From: 09/01/2016 Date	To: 08/31/2017 Date	$154,556.59 Total cost	☐ Breakdown attached

3. **Unanticipated or Unusually High O&M Costs during Review Period**

Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Fencing

1. **Fencing Damaged** ☐ Location shown on site map ☒ Gates secured ☐ N/A

Remarks: No fencing damage observed.

B. Other Access Restrictions

1. **Signs and Other Security Measures** ☐ Location shown on site map ☐ N/A

Remarks: There is signage present indicating the name of the Site and no trespassing.

C. Institutional Controls (ICs)

1. **Implementation and Enforcement**

Site conditions imply ICs not properly implemented ☐ Yes ☒ No ☐ N/A

Site conditions imply ICs not being fully enforced ☐ Yes ☒ No ☐ N/A

Type of monitoring (e.g., self-reporting, drive by): Self-reporting

Frequency: Monthly

Responsible party/agency: O&M contractor

Contact	Marc Viola	Project Manager	_____	_____
	Name	Title	Date	Phone no.

Reporting is up to date ☒ Yes ☐ No ☐ N/A

Reports are verified by the lead agency ☒ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met ☒ Yes ☐ No ☐ N/A

Violations have been reported ☐ Yes ☒ No ☐ N/A

Other problems or suggestions: ☐ Report attached

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks: _____

D. General

1. **Vandalism/Trespassing** ☐ Location shown on site map ☒ No vandalism evident

Remarks: _____

2. **Land Use Changes On Site** ☒ N/A

Remarks: _____

3. **Land Use Changes Off Site** ☒ N/A

Remarks: _____

VI. GENERAL SITE CONDITIONS

A. Roads ☒ Applicable ☐ N/A

1. **Roads Damaged** ☐ Location shown on site map ☒ Roads adequate ☐ N/A

Remarks: _____

B. Other Site Conditions

Remarks: _____

VII. LANDFILL COVERS ☒ Applicable ☐ N/A

A. Landfill Surface

1. **Settlement** (low spots) ☐ Location shown on site map ☒ Settlement not evident

Area extent: _____ Depth: _____

Remarks: _____

2. **Cracks** ☐ Location shown on site map ☒ Cracking not evident

Lengths: _____ Widths: _____ Depths: _____

Remarks: _____

3.	**Erosion**	☐ Location shown on site map	☒ Erosion not evident
	Area extent: _____		Depth: _____
	Remarks: _____		
4.	**Holes**	☐ Location shown on site map	☒ Holes not evident
	Area extent: _____		Depth: _____
	Remarks: _____		
5.	**Vegetative Cover**	☒ Grass	☒ Cover properly established
	☒ No signs of stress	☐ Trees/shrubs (indicate size and locations on a diagram)	
	Remarks: Vegetative cover is property established and includes grasses that are about 3 feet high.		
6.	**Alternative Cover** (e.g., armored rock, concrete)		☒ N/A
	Remarks: _____		
7.	**Bulges**	☐ Location shown on site map	☒ Bulges not evident
	Area extent: _____		Height: _____
	Remarks: _____		
8.	**Wet Areas/Water Damage**	☒ Wet areas/water damage not evident	
	☐ Wet areas	☐ Location shown on site map	Area extent: _____
	☐ Ponding	☐ Location shown on site map	Area extent: _____
	☐ Seeps	☐ Location shown on site map	Area extent: _____
	☐ Soft subgrade	☐ Location shown on site map	Area extent: _____
	Remarks: There were some wet areas on the vegetative cover. However, it had rained the previous night.		
9.	**Slope Instability**	☐ Slides	☐ Location shown on site map
	☐ No evidence of slope instability		
	Area extent: _____		
	Remarks: Some drainage material from the landfill cover is exposed on the landfill slope. However, this was expected given the nature of the material.		
B. Benches		☐ Applicable	☒ N/A
	(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)		
C. Letdown Channels		☐ Applicable	☒ N/A
	(Channel lined with erosion control mats, riprap, grout bags or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)		
D. Cover Penetrations		☒ Applicable	☐ N/A
1.	**Gas Vents**	☐ Active	☐ Passive
	☐ Properly secured/locked	☐ Functioning	☐ Routinely sampled ☐ Good condition
	☐ Evidence of leakage at penetration	☐ Needs maintenance	☒ N/A
	Remarks: _____		

2. **Gas Monitoring Probes**

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☐ Needs maintenance ☒ N/A

Remarks: _____

3. **Monitoring Wells** (within surface area of landfill)

☒ Properly secured/locked ☒ Functioning ☒ Routinely sampled ☒ Good condition

☐ Evidence of leakage at penetration ☐ Needs maintenance ☐ N/A

Remarks: _____

4. **Extraction Wells Leachate**

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ Evidence of leakage at penetration ☐ Needs maintenance ☒ N/A

Remarks: _____

5. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☒ N/A

Remarks: _____

E. Gas Collection and Treatment ☐ Applicable ☒ N/A

F. Cover Drainage Layer ☐ Applicable ☒ N/A

G. Detention/Sedimentation Ponds ☐ Applicable ☒ N/A

H. Retaining Walls ☐ Applicable ☒ N/A

I. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☒ N/A

VIII. VERTICAL BARRIER WALLS ☒ Applicable ☐ N/A

1. **Settlement** ☐ Location shown on site map ☒ Settlement not evident

Area extent: _____ Depth: _____

Remarks: _____

2. **Performance Monitoring** Type of monitoring: Groundwater elevation monitoring

☐ Performance not monitored

Frequency: Semi-annually or as directed by the TCEQ project manager ☐ Evidence of breaching

Head differential: _____

Remarks: It appears the inward hydraulic gradient is being maintained in the shallow zone.

IX. GROUNDWATER/SURFACE WATER REMEDIES ☒ Applicable ☐ N/A

A. Groundwater Extraction Wells, Pumps and Pipelines ☒ Applicable ☐ N/A

1. **Pumps, Wellhead Plumbing and Electrical**

☒ Good condition ☒ All required wells properly operating ☐ Needs maintenance ☐ N/A

Remarks: _____

2. **Extraction System Pipelines, Valves, Valve Boxes and Other Appurtenances**

☒ Good condition ☐ Needs maintenance

Remarks: _____

3. **Spare Parts and Equipment**

☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided

Remarks: The system is old and is aging. However, it is being refurbished as needed to keep it running.

B. Surface Water Collection Structures, Pumps and Pipelines ☐ Applicable ☒ N/A

1. **Collection Structures, Pumps and Electrical**

☐ Good condition ☐ Needs maintenance

Remarks: _____

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes and Other Appurtenances**

☐ Good condition ☐ Needs maintenance

Remarks: _____

3. **Spare Parts and Equipment**

☐ Readily available ☐ Good condition ☐ Requires upgrade ☐ Needs to be provided

Remarks: _____

C. Treatment System ☒ Applicable ☐ N/A

1. **Treatment Train** (check components that apply)

☐ Metals removal ☒ Oil/water separation ☐ Bioremediation

☐ Air stripping ☐ Carbon adsorbers

☒ Filters: Charcoal

☐ Additive (e.g., chelation agent, flocculent): _____

☐ Others: _____

☒ Good condition ☐ Needs maintenance

☒ Sampling ports properly marked and functional

☒ Sampling/maintenance log displayed and up to date

☒ Equipment properly identified

☐ Quantity of groundwater treated annually: _____

☐ Quantity of surface water treated annually: _____

Remarks: _____

2. **Electrical Enclosures and Panels** (properly rated and functional)

☐ N/A ☒ Good condition ☐ Needs maintenance

Remarks: _____

3. **Tanks, Vaults, Storage Vessels**

☐ N/A ☐ Good condition ☐ Proper secondary containment ☒ Needs maintenance

Remarks: Most tanks are in good condition. However, the knockout tank needs to be replaced.

4. **Discharge Structure and Appurtenances**

☐ N/A ☒ Good condition ☐ Needs maintenance

Remarks: _____

5. **Treatment Building(s)**

☐ N/A ☒ Good condition (esp. roof and doorways) ☐ Needs repair

☒ Chemicals and equipment properly stored

Remarks: _____

6. **Monitoring Wells** (pump and treatment remedy)

☒ Properly secured/locked ☒ Functioning ☒ Routinely sampled ☒ Good condition

☒ All required wells located ☐ Needs maintenance ☐ N/A

Remarks: All observed monitoring wells were locked and property labeled.

D. Monitoring Data

1. **Monitoring Data**

☒ Is routinely submitted on time ☒ Is of acceptable quality

2. **Monitoring Data Suggests:**

☐ Groundwater plume is effectively contained ☐ Contaminant concentrations are declining

E. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition

☐ All required wells located ☐ Needs maintenance ☒ N/A

Remarks: _____

X. OTHER REMEDIES

If there are remedies applied at the site and not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is designed to accomplish (e.g., to contain contaminant plume, minimize infiltration and gas emissions).

The remedy was designed to prevent future contamination of the adjacent flood control channel, minimize direct contact with contaminated soils, prevent degradation of off-site soil, prevent further degradation of off-site groundwater, reduce the risk of groundwater degradation in the deeper sand units, and reduce contamination in the 100-foot sand unit. The remedy is mostly effective and functioning as designed. However, it appears that groundwater contamination from the 30-foot sand unit might be moving into the 100-foot sand unit. In 2016, O&M contractors also discovered the presence of DNAPL in deep monitoring wells while performing a clear bailing of the wells. The DNAPL plume may also be migrating to the southeast. Groundwater monitoring data over the FYR period has shown steady increases of PCB contamination in the deep zone and groundwater contamination may be expanding.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

O&M procedures are implemented as prescribed in the ROD and O&M Manual. The treatment system is aging and some parts need to be replaced. Overall, it is in good condition.

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

The remedy may need to be changed based on issues and problems listed above.

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.
EPA is currently conducting an optimization study.

APPENDIX E – PRE-NPL, REMEDIAL ACTION AND SITE INSPECTION PHOTOS

BEFORE – 1982-1990

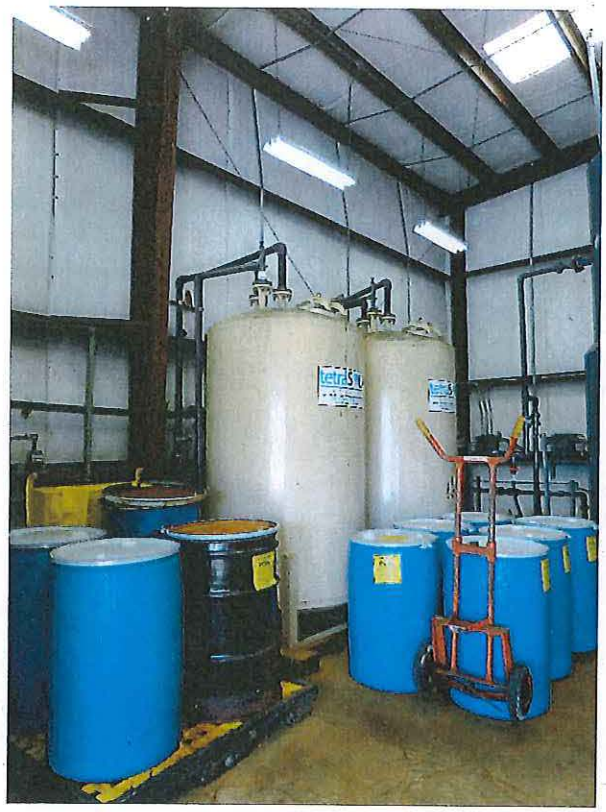
Aerial of the Site in August 1982 before NPL listing

Aerial of the Site in April 1990 during remedy construction

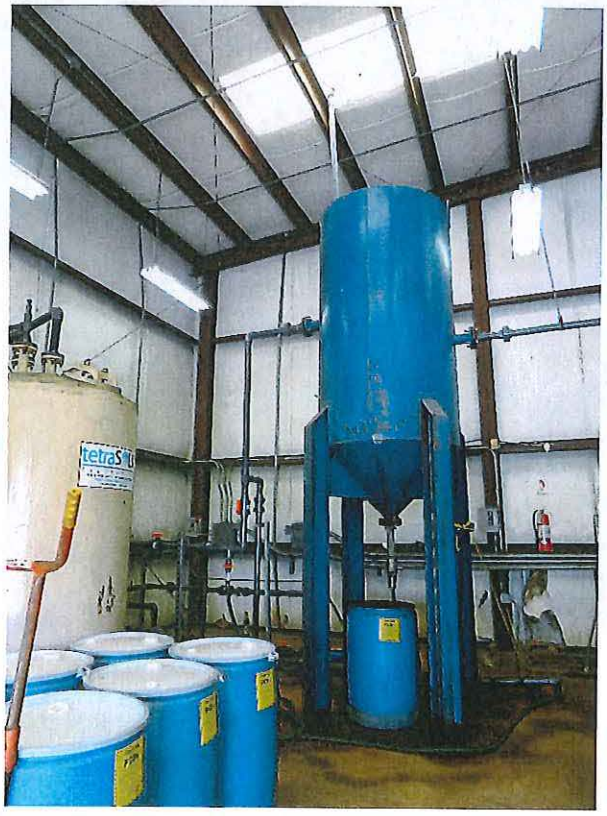
AFTER – Site Inspection Photos: October 2017

Signage on the site entrance gate

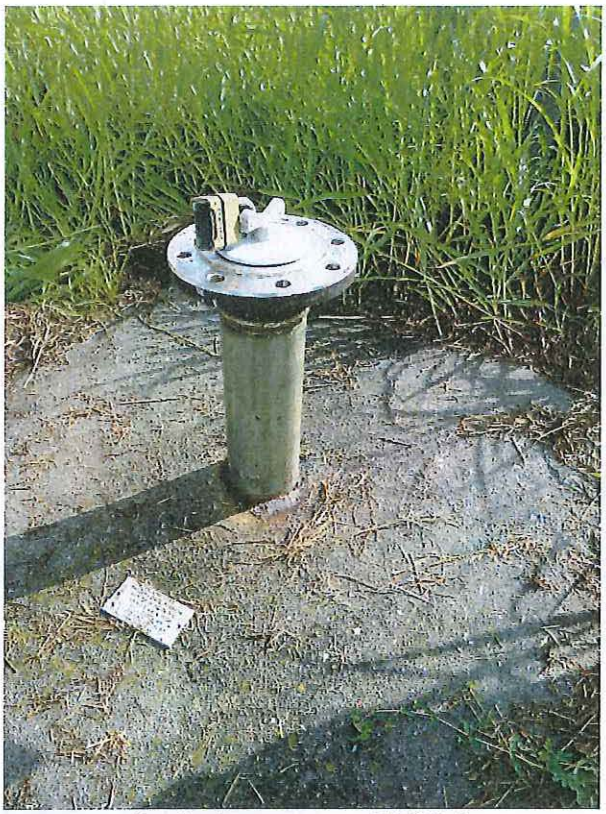
Groundwater recovery and treatment building



Granular activated carbon tanks, part of the groundwater recovery and treatment system

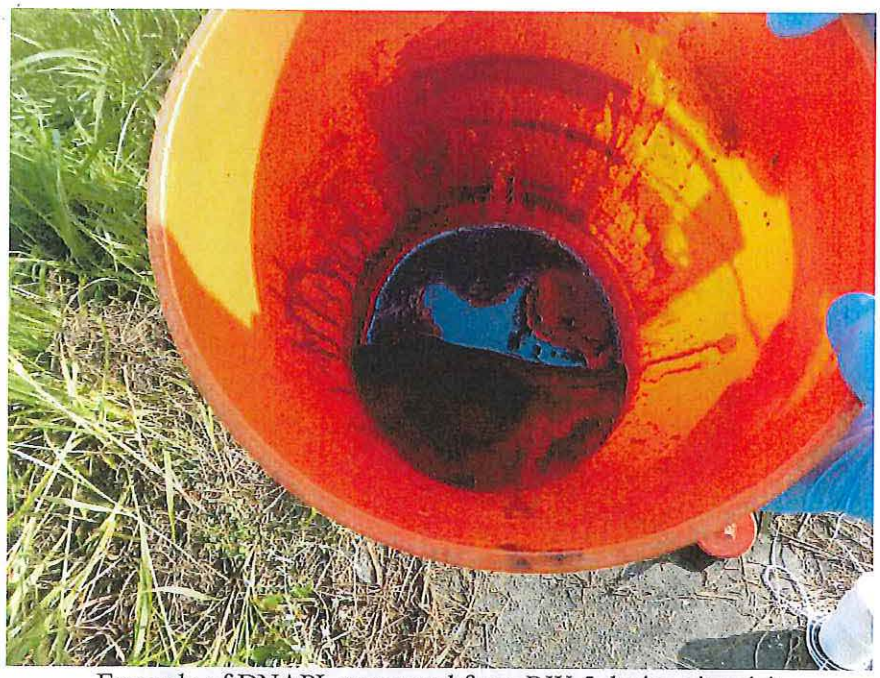


Oil/water separator tank, part of the groundwater recovery and treatment system



Locked recovery well RW-5

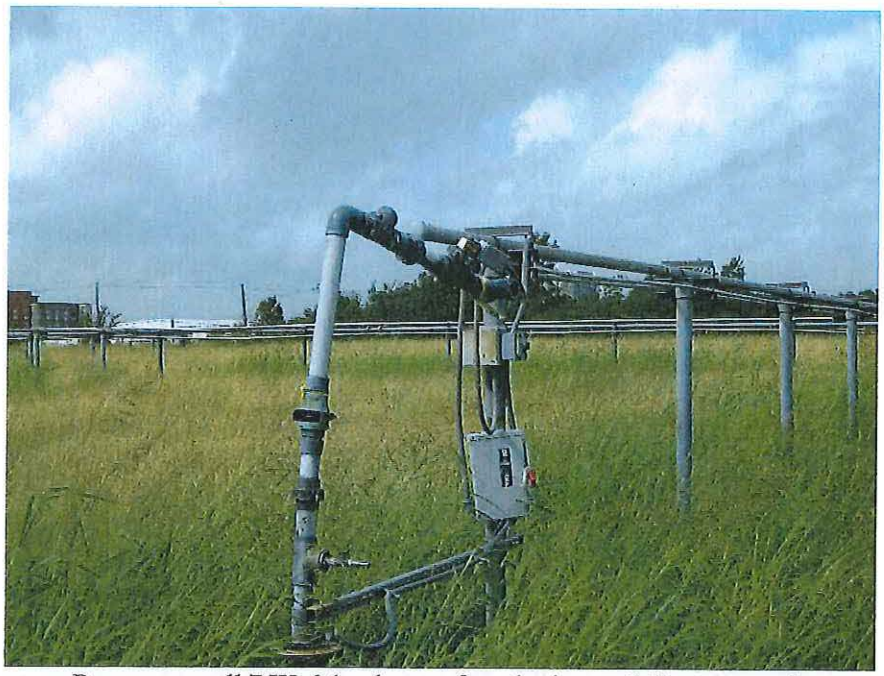
Clearly marked recovery well RW-5



Example of DNAPL recovered from RW-5 during site visit

Capped area looking east with vegetation

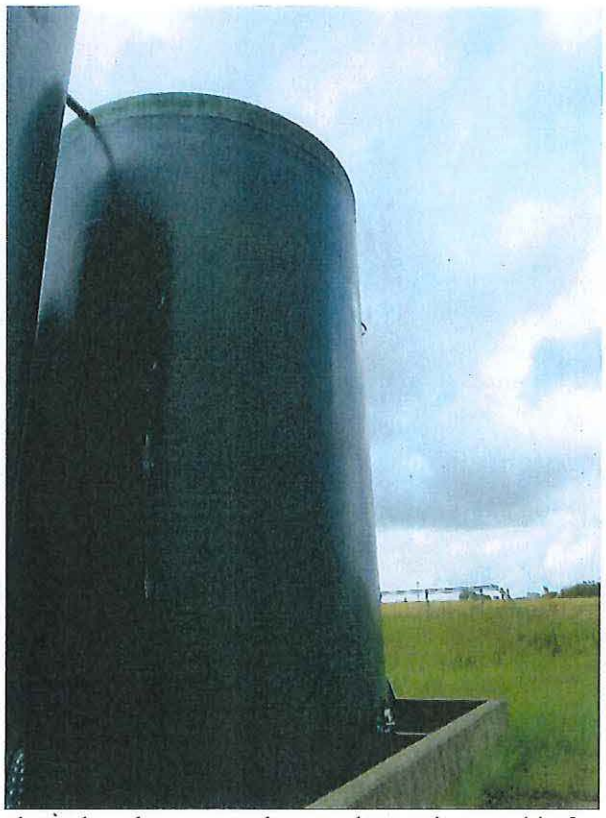
Locked monitoring well MW-26



Recovery well RW-6 (no longer functioning and disconnected)

Piping, part of the active groundwater recovery and treatment system

Cluster of deep monitoring wells – MW-101, MW-102, MW-103 and MW-104



One of the six tanks where treated groundwater is stored before discharge

Effluent discharge outfall piping

Treated groundwater storage tanks (right) and the HCFCC (left), located east of the Site

APPENDIX F – DATA FIGURES AND TABLES

Figure F-1: June 2017 Shallow Wells Potentiometric Surface Map

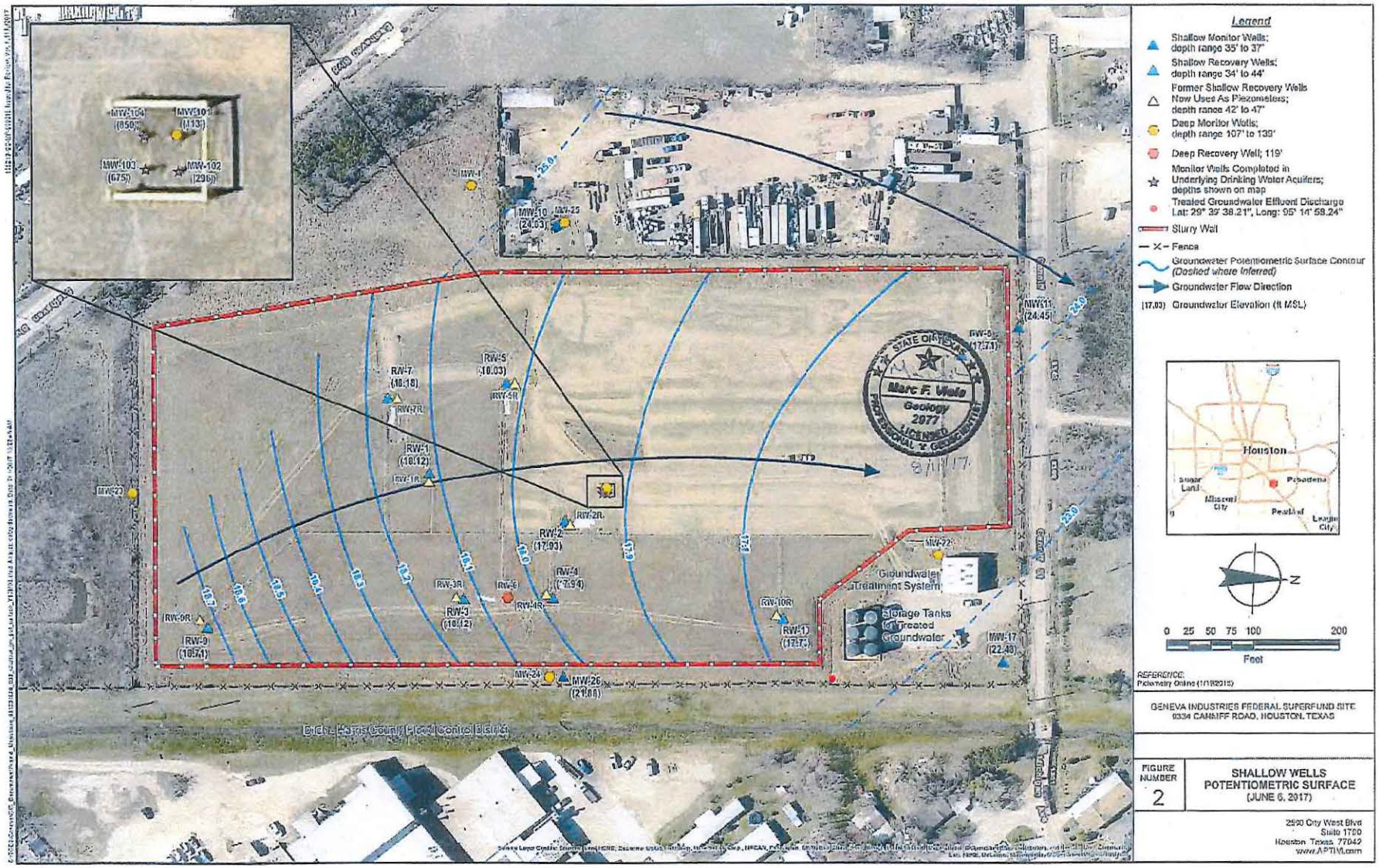


Figure F-2: June 2017 Deep Wells Potentiometric Surface Map

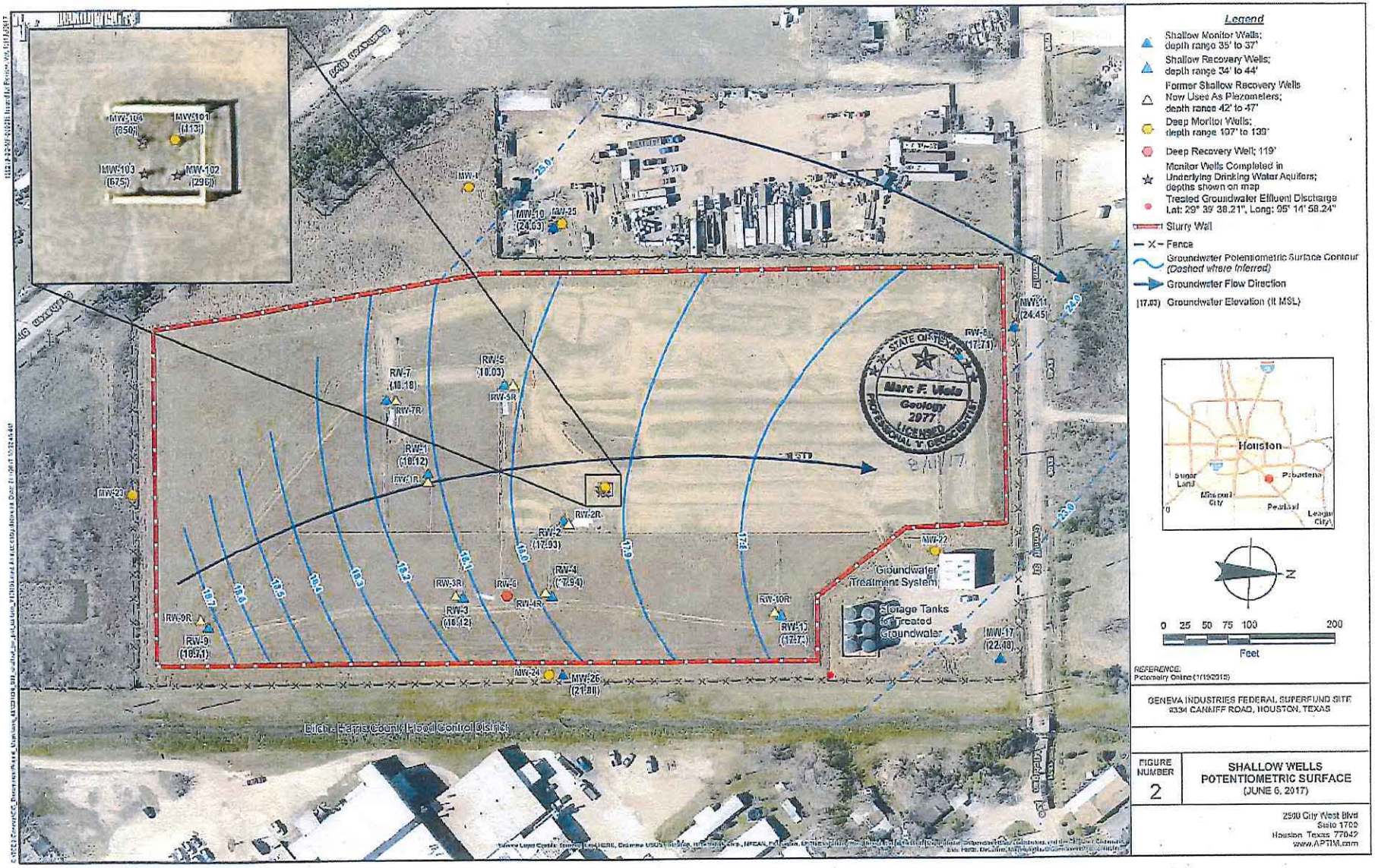


Table F-1: Cumulative Groundwater Monitoring Data

Sample ID	Chemical CAS No. Tier 1 PCL Date	Benzene 71-43-2 0.005 Val	Qual	Toluene 108-88-3 1.00 Val	Qual	Ethylbenzene 100-41-4 0.70 Val	Qual	Xylenes 1330-20-7 10 Val	Qual	cis-1,2-Dichloroethylene 156-59-2 0.070 Val	Qual	Tetrachloroethylene 127-18-4 0.005 Val	Qual	trans-1,2-Dichloroethylene 156-60-5 0.10 Val	Qual
MW-5	01/13/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.005	U	NA		NA		NA	
MW-5	01/26/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-5	01/09/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-5	05/31/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-5	07/12/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-5	10/09/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-5-0108	01/07/08	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-5-0408	04/29/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-5-0708	07/02/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-5-0109	01/06/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-5-0609	06/10/09	<0.00045	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-09-0710	07/26/10	<0.00059	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-5-0211	02/24/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-09-0711	07/13/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-5-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-5-0412	04/26/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-5-0113	01/23/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-5-0713	07/02/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-5-0114	01/16/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-5-0714	07/03/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-5-0115	01/06/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-5-0116	01/05/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
MW-5-1216	12/21/16	<0.00047	U	NA		NA		NA		<0.00052	U;UJ-CCAL	NA		<0.00047	U;UJ-CCAL
MW-5-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
MW-10	01/14/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.005	U	NA		NA		NA	
MW-10	01/26/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-10	01/09/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-10	05/30/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-10	07/13/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-10	10/09/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-10-0108	01/07/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-10-0408	04/29/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-10-0708	07/03/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-10-0109	01/06/09	<0.00046	U	<0.00048	U	0.00066	J	<0.0014	U	NA		NA		NA	
MW-10-0609	06/10/09	<0.00046	U	<0.00048	U	<0.00045		<0.0014	U	NA		NA		NA	
MW-10-0710	07/26/10	<0.00059	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-10-0211	02/24/11	<0.00008	U;UJL-SUR	NA		NA		NA		<0.00006	U;UJL-SUR	NA		<0.00009	U;UJL-SUR
MW-10-0711	07/13/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-10-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-10-0412	04/25/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-10-0113	01/22/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-10-0713	07/03/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-10-0114	01/16/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-10-0714	07/02/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-10-0115	01/07/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-10-0116	01/05/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
MW-10-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-10-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
MW-11	01/13/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.005	U	NA		NA		NA	
MW-11	01/26/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-11	01/10/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-11	05/31/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-11	07/13/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-11	10/10/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-11-0108	01/07/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-11-0408	04/29/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-11-0708	07/04/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-11-0109	01/05/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-11-0609	06/10/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-11-0710	07/26/10	<0.00059	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-11-0211	02/25/11	<0.00008	U;UJL-SUR	NA		NA		NA		<0.00006	U;UJL-SUR	NA		<0.00009	U;UJL-SUR
MW-11-0711	07/13/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-11-1211	12/13/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-11-0412	04/25/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-11-0113	01/22/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-10-0713	07/03/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-11-0114	01/17/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-11-0714	07/02/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-11-0115	01/07/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-11-0116	01/05/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
MW-11-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-11-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U

Sample ID	Chemical CAS No. Tier 1 PCL Date	Benzene 71-43-2 0.005 Val	Qual	Toluene 108-88-3 1.00 Val	Qual	Ethylbenzene 100-41-4 0.70 Val	Qual	Xylenes 1330-20-7 10 Val	Qual	cis-1,2-Dichloroethylene 156-59-2 0.070 Val	Qual	Tetrachloroethylene 127-18-4 0.005 Val	Qual	trans-1,3-Dichloroethylene 156-60-5 0.10 Val	Qual
MW-17	01/13/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.006	U	NA		NA		NA	
MW-17	01/26/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-17	01/10/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-17	05/30/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-17	07/12/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-17	10/31/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-17-0108	01/07/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-17-0408	04/29/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-17-0708	07/01/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-17-0109	01/08/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-17-0609	06/11/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW17-0710	07/20/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-17-0211	02/25/11	<0.00008	U;UJL-SUR	NA		NA		NA		<0.00006	U;UJL-SUR	NA		<0.00009	U;UJL-SUR
MW-17-0711	07/13/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-17-1211	12/13/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-17-0412	04/25/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-17-0113	01/22/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-17-0713	07/03/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-17-0114	01/17/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-17-0714	07/01/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-17-0115	01/07/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-17-0116	01/06/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
MW-17-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-17-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
MW-22	01/13/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.006	U	NA		NA		NA	
MW-22	01/26/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-22	01/10/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-22	05/30/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-22	07/12/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-22	10/08/07	<0.00023	U	0.00066	J	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-22-0108	01/08/08	<0.00046	U	0.0007		<0.00045	U	<0.0014	U	NA		NA		NA	
MW-22-0408	04/29/08	<0.00046	U	0.00049		<0.00045	U	<0.0014	U	NA		NA		NA	
MW-22-0708	07/01/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-22-0109	01/08/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-22-0609	06/11/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-22-0710	07/20/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-22-0211	02/25/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-22-0711	07/13/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-22-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-22-0412	04/26/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-22-0113	01/23/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-22-0713	07/02/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-22-0114	01/16/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-22-0714	07/01/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-22-0115	01/06/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-22-0116	01/06/16	<0.00047	U	0.00059	J	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
MW-22-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-22-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
MW-23	01/14/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.006	U	NA		NA		NA	
MW-23	01/26/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-23	01/09/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-23	05/30/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-23	07/13/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-23	10/05/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-23-0108	01/07/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-23-0408	04/29/08	<0.00046	U	0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-23-0708	07/02/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-23-0109	01/08/09	<0.00046	U	0.00059	J	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-23-0609	06/10/09	<0.00046	U	0.00073	J	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-23-0710	07/26/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-23-0211	02/24/11	<0.00008	U;UJL-SUR	NA		NA		NA		<0.00006	U;UJL-SUR	NA		<0.00009	U;UJL-SUR
MW-23-0711	07/12/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-23-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-23-0412	04/26/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-23-0113	01/22/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-23-0713	07/02/13	<0.00054	J	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-23-0114	01/17/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-23-0714	07/07/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-23-0115	01/07/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-23-0116	01/07/16	<0.00047	U	0.0019		<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
MW-23-1216	12/20/16	0.00067	J	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-23-0617	06/06/17	0.0018		NA		NA		NA		<0.00030	U	NA		<0.00030	U

Sample ID	Chemical CAS No. Tier 1 PCL Date	Benzene 71-43-2 0.005 Val	Qual	Toluene 108-88-3 1.00 Val	Qual	Ethylbenzene 100-41-4 0.70 Val	Qual	Xylenes 1330-20-7 10 Val	Qual	cis-1,2-Dichloroethylene 156-59-2 0.070 Val	Qual	Tetrachloroethylene 127-18-4 0.005 Val	Qual	trans-1,2-Dichloroethylene 156-60-5 0.10 Val	Qual
MW-24	01/13/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.005	U	NA		NA		NA	
MW-24	01/26/06	<0.00018	U	<0.00025	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-24	01/05/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-24	05/31/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-24	07/12/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-24	10/09/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-24-0108	01/08/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-24-0408	04/29/08	<0.00046	U	0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-24-0708	07/02/08	<0.00046	U	<0.00048	U	0.007		<0.0014	U	NA		NA		NA	
MW-24-0109	01/09/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-24-0609	06/10/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-24-0710	07/26/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-24-0211	02/24/11	<0.00008	U;UJL-SUR	NA		NA		NA		0.00195	JL-SUR	NA		0.000111	J;JL-SUR
MW-24-0711	07/13/11	0.000205	J	NA		NA		NA		0.000519		NA		0.00466	
MW-24-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-24-0412	04/26/12	<0.00025	U	NA		NA		NA		0.0076		<0.00033	U	0.0055	
MW-24-0113	01/23/13	<0.00034	U	NA		NA		NA		0.0025		<0.00046	U	0.0023	
MW-24-0713	07/02/13	0.00044	J	NA		NA		NA		0.0085		<0.00046	U	0.0034	
MW-24-0114	01/17/14	0.00048	J	NA		NA		NA		0.0089		NA		0.0040	
MW-24-0714	07/03/14	<0.00034	U	NA		NA		NA		0.0074		NA		0.0022	
MW-24-0115	01/07/15	0.0005	J	NA		NA		NA		0.0107		NA		0.0019	
MW-24-0116	01/07/16	0.00057	J	<0.00049	U	0.11		0.0036		0.009		<0.00038	U	0.0017	
MW-24-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-24-0617	06/07/17	<0.00030	U	NA		NA		NA		0.00070	J	NA		<0.00030	U
MW-25	01/26/06	<0.00018	U	<0.00025	U	<0.00038	U	<0.00018	U	NA		NA		NA	
MW-25	01/09/07	<0.00050	U	<0.00024	U	<0.00035	U	<0.00017	U	NA		NA		NA	
MW-25	05/30/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-25	07/13/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-25	10/09/07	<0.00023	U	<0.00054	U	<0.00048	U	<0.0011	U	NA		NA		NA	
MW-25-0108	01/07/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-25-0408	04/29/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-25-0708	07/02/08	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-25-0109	01/08/09	<0.00046	U	<0.00048	U	0.0015	J	<0.0014	U	NA		NA		NA	
MW-25-0609	06/10/09	<0.00046	U	<0.00048	U	<0.00045	U	<0.0014	U	NA		NA		NA	
MW-25-0710	07/26/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-25-0211	02/24/11	<0.00008	U;UJL-SUR	NA		NA		NA		<0.00006	U;UJL-SUR	NA		<0.00009	U;UJL-SUR
MW-25-0711	07/13/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-25-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-25-0412	04/26/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-25-0113	01/23/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-25-0713	07/02/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-25-0114	01/16/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-25-0714	07/03/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-25-0115	01/07/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-25-0116	01/06/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
MW-25-1216	12/21/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-25-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
MW-26	01/13/05	<0.0020	U	<0.0020	U	<0.0020	U	<0.005	U	NA		NA		NA	
MW-26	01/26/06	0.014		<0.00026	U	0.058		<0.00018	U	NA		NA		NA	
MW-26	01/11/07	0.096		0.002	J	0.74		0.017		NA		NA		NA	
MW-26	05/31/07	0.0412		0.0016		0.731		0.0117		NA		NA		NA	
MW-26	07/12/07	0.0372		<0.0027	U	0.639		0.0827		NA		NA		NA	
MW-26	10/09/07	0.0043	J-FD	<0.00054	U	0.0303	J-FD	<0.0011	U	NA		NA		NA	
MW-26-0108	01/08/08	0.0268		0.0011	J	0.155	J-FD	0.005	J	NA		NA		NA	
MW-26-0408	04/29/08	0.0089	J-FD	0.00051	J	0.115		0.0017	J	NA		NA		NA	
MW-26-0708	07/02/08	0.0078		<0.00048	U	0.107		<0.0014	U	NA		NA		NA	
MW-26-0109	01/07/09	0.0386		0.0026		0.54		0.0112		NA		NA		NA	
MW-26-0609	06/10/09	0.00071	J	<0.00048	U	0.0015	J	<0.0014	U	NA		NA		NA	
MW-26-0710	07/20/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-26-0211	02/24/11	<0.00008	U;UJL-SUR	NA		NA		NA		0.00198	JL-SUR	NA		<0.00009	U;UJL-SUR
MW-26-0711	07/13/11	0.000599	J	NA		NA		NA		0.000525	J	NA		<0.00009	U
MW-26-1211	12/13/11	0.0026	J-FD	NA		NA		NA		0.0015	J-FD	<0.00033	U	<0.0003	U
MW-26-0412	04/25/12	<0.00025	U	NA		NA		NA		NA		<0.00033	U	<0.00030	U
MW-26-0113	01/23/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-26-0713	07/03/13	0.0101		NA		NA		NA		0.0124		<0.00046	U	<0.00047	U
MW-26-0114	01/17/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-26-0714	07/02/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-26-0115	01/07/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-26-0116	01/06/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	0.0013		<0.00038	U	<0.00047	U
MW-26-1216	12/20/16	0.00096	J	NA		NA		NA		0.0014		NA		<0.00047	U
MW-26-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U

Sample ID	Chemical CAS No. Tier 1 PCL Date	Benzene 71-43-2 0.005 Val	Qual	Toluene 108-88-3 1.00 Val	Qual	Ethylbenzene 100-41-4 0.70 Val	Qual	Xylenes 1330-20-7 10 Val	Qual	cis-1,2-Dichloroethylene 156-59-2 0.070 Val	Qual	Tetrachloroethylene 127-18-4 0.005 Val	Qual	trans-1,2-Dichloroethylene 156-60-5 0.10 Val	Qual
MW-101-0710	07/27/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-101-0211	02/26/11	<0.00008	U;UJL-SUR	NA		NA		NA		<0.00005	U;UJL-SUR	NA		<0.00009	U;UJL-SUR
MW-101-0711	07/14/11	<0.00008	U	NA		NA		NA		<0.00005	U	NA		<0.00009	U
MW-101-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-101-0412	04/30/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-101-0113	01/25/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-101-0713	07/05/13	0.00051	J	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-101-0114	01/15/14	0.0011		NA		NA		NA		<0.00040	U	NA		<0.00047	U
Before July 2014 this well was thought be MW-101. However, gauging with a string and weight confirmed a total depth of 850 feet, indicating the well was actually MW-104. Data shown above this entry is for MW-104, and below this entry is for MW-101.															
MW-101-0714	07/01/14	<0.00034	U	NA		NA		NA		0.0027		NA		<0.00047	U
MW-101-0115	01/07/15	0.0004	J	NA		NA		NA		0.0017		NA		<0.00047	U
MW-101-0116	01/07/16	<0.00047	U	<0.00049	U	<0.00046	U	0.0025	J	0.00093	J	<0.00036	U	<0.00047	U
MW-101-1216	12/20/16	<0.00047	U	NA		NA		NA		0.00079	J	NA		<0.00047	U
MW-101-0617	06/06/17	0.00068	J	NA		NA		NA		0.00045	J	NA		<0.00030	U
MW-102	01/17/05	<0.0020	U	<0.0020	U	0.0048		0.0152		NA		NA		NA	
MW-102	01/26/06	<0.00018	U	<0.00025	U	<0.00038	U	0.001		NA		NA		NA	
MW-102	05/31/07	0.0013		<0.00064	U	0.0057		0.0049		NA		NA		NA	
MW-102	10/10/07	<0.00023	U	<0.00064	U	0.0015		0.0261		NA		NA		NA	
MW-102-0108	01/08/08	0.0011	J	<0.0020	U	0.0014		0.0056	J	NA		NA		NA	
MW-102-0408	04/30/08	<0.00046	U	<0.00048	U	0.0009		0.0064	JI-FD	NA		NA		NA	
MW-102-0708	07/02/08	<0.00045	U	<0.00048	U	0.00047		0.0048	J	NA		NA		NA	
MW-102-0109	01/09/09	0.0008	J	<0.00048	U	0.001		0.0029	J	NA		NA		NA	
MW-102-0609	06/11/09	0.0011	J	<0.00048	U	0.0023		0.0026	J	NA		NA		NA	
MW-102-0710	07/27/10	<0.00050	U	NA		NA		NA		0.0033		NA		0.00073	J
MW-102-0211	02/26/11	0.00115		NA		NA		NA		0.00417		NA		0.000645	J
MW-102-0711	07/14/11	0.000715	J	NA		NA		NA		0.000964	J	NA		0.000261	J
MW-102-1211	12/14/11	0.0006	J	NA		NA		NA		0.00049	J	<0.00033	U	<0.0003	U
MW-102-0412	04/27/12	0.00053	J	NA		NA		NA		0.0013		<0.00033	U	<0.00030	U
MW-102-0113	01/24/13	0.00075	J	NA		NA		NA		0.0024		<0.00046	U	<0.00047	U
MW-102-0713	07/02/13	<0.00034	U	NA		NA		NA		0.0054		<0.00046	U	<0.00047	U
MW-102-0114	01/15/14	<0.00034	U	NA		NA		NA		0.0036		NA		<0.00047	U
Before July 2014 this well was thought to be MW-102. However, gauging with a string and weight confirmed a total depth of 118 feet, indicating the well was actually MW-101. Data shown above this entry is for MW-101, and below this entry is for MW-102.															
MW-102-0714	07/07/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-102-0115	01/08/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-102-0116	01/08/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00036	U	<0.00047	U
MW-102-1216	12/15/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-102-1216	12/15/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-102-0617	06/06/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
MW-103-0710	07/27/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-103-0211	02/26/11	<0.000154	J;U-SUR, RB	NA		NA		NA		<0.00006	U;UJL-SUR	NA		<0.00009	U;UJL-SUR
MW-103-0711	07/14/11	0.0000955	J	NA		NA		NA		<0.00006	U	NA		<0.00009	U
MW-103-1211	12/14/11	0.0003	J	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-103-0412	04/30/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-103-0113	01/24/13	0.00044	J	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-103-0713	07/02/13	0.0011		NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
This well was not sampled in January or July 2014 because a pump was installed in the well but not connected to power.															
MW-103-0115	01/08/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
MW-103-0116	01/07/16	<0.00047	U	0.00079	J	<0.00046	U	<0.0012	U	<0.00052	U	<0.00036	U	<0.00047	U
MW-103-1216	12/15/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
MW-103-0617	06/06/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
MW-104-0609	06/11/09	<0.00046	U	<0.00048	U	<0.00048	U	<0.0014	U	NA		NA		NA	
MW-104-0710	07/27/10	<0.00050	U	NA		NA		NA		<0.00056	U	NA		<0.00045	U
MW-104-0211	02/26/11	<0.00008	U	NA		NA		NA		<0.00005	U	NA		<0.00009	U
MW-104-0711	07/14/11	<0.00008	U	NA		NA		NA		<0.00005	U	NA		<0.00009	U
MW-104-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
MW-104-0412	04/30/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
MW-104-0113	01/24/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-104-0713	07/03/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
MW-104-0114	01/15/14	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
Before July 2014 this well was thought to be MW-104. However, video inspection of the well confirmed a total depth of 298 feet, indicating the well was actually MW-102. Data shown above this entry is for MW-102, and below this entry is for MW-104.															
This well was not sampled in July 2014 because a pump was installed in the well but not connected to power.															

Sample ID	Chemical CAS No. Tier 1 PCL Date	Benzene 71-43-2 0.005 Val	Qual	Toluene 108-88-3 1.00 Val	Qual	Ethylbenzene 100-41-4 0.70 Val	Qual	Xylenes 1330-20-7 10 Val	Qual	cis-1,2-Dichloroethylene 156-59-2 0.070 Val	Qual	Tetrachloroethylene 127-18-4 0.005 Val	Qual	trans-1,2-Dichloroethylene 156-60-5 0.10 Val	Qual
RW-1	01/17/05	0.0102		0.0055		0.0842		0.119		NA		NA		NA	
RW-1	01/24/06	0.005		0.076		1.8		7.2		NA		NA		NA	
RW-1	02/01/06	0.005		0.076		1.8		7.2		NA		NA		NA	
RW-2	01/17/05	0.0118		0.0054		0.874		2.45		NA		NA		NA	
RW-2	01/24/06	0.008		0.003		0.47		0.512		NA		NA		NA	
RW-3	01/16/05	<0.0020	U	<0.0020	U	0.017		0.0556		NA		NA		NA	
RW-3	01/24/06	0.002	U	<0.00026	U	0.24		0.91		NA		NA		NA	
RW-4	01/17/05	<0.0020	U	<0.0020		0.0186		0.0613		NA		NA		NA	
RW-4	01/24/06	0.01		0.01		1.4		1.355		NA		NA		NA	
RW-5	01/16/05	0.0169		0.0665		0.573		3.47		NA		NA		NA	
RW-5	01/25/06	0.01		0.081		1.4		10.4		NA		NA		NA	
RW-6	01/17/05	<0.0020	U	<0.0020		0.0054		0.0233		NA		NA		NA	
RW-6	01/25/06	<0.00018	U	<0.00026	U	0.008		<0.00018	U	NA		NA		NA	
RW-7	01/16/05	<0.0020	U	<0.0020		0.0154		0.0913	U	NA		NA		NA	
RW-7	01/25/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
RW-8	01/16/05	<0.0020	U	<0.0020		0.001		0.002		NA		NA		NA	
RW-8	01/25/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
RW-9	01/16/05	<0.0020	U	<0.0020		0.0046		0.0275		NA		NA		NA	
RW-9	01/25/06	<0.00018	U	<0.00026	U	<0.00038	U	<0.00018	U	NA		NA		NA	
RW-10	01/17/05	0.0362		0.0035		0.0867		0.0505		NA		NA		NA	
RW-10	01/25/06	0.02		0.003		0.14		0.049		NA		NA		NA	
FB-01-0711	07/14/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
FB-01-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.0003	U
FB-01-0412	04/26/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
WD-01-0211	02/24/11	<0.00008	U	NA		NA		NA		0.00197		NA		<0.00009	U
WD-01-0711	07/13/11	0.000586	J	NA		NA		NA		0.000539	J	NA		<0.00009	U
WD-01-1211	12/12/11	0.0014	JHFD	NA		NA		NA		0.00043	JJHFD	<0.00033	U	<0.0003	U
WD-01-0412	04/26/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
WD-01-0113	01/23/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046		<0.00047	U
WD-01-0713	07/03/13	0.00039	J	NA		NA		NA		0.0056		<0.00046	U	<0.00047	U
WD-01-0114	01/17/14	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
WD-01-0714	07/02/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WD-01-0115	01/08/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WD-01-0116	01/08/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	0.0012		<0.00038	U	<0.00047	U
WD-01-1216	12/20/16	<0.00047	U	NA		NA		NA		0.00071	J	NA		<0.00047	U
WD-01-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
WD-02-0211	02/26/11	0.00114	JL-SUR	NA		NA		NA		0.00415	JL-SUR	NA		0.000501	JJL-SUR
WD-02-0711	07/14/11	0.000766	J	NA		NA		NA		0.00101		NA		0.00024	J
WD-02-1211	12/14/11	0.00053	J	NA		NA		NA		0.00049	J	<0.00033	U	<0.0003	U
WD-02-0412	04/27/12	0.00060	J	NA		NA		NA		0.0016		<0.00033	U	<0.00030	U
WD-02-0113	01/22/13	0.00077	J	NA		NA		NA		0.0022		<0.00046	U	<0.00047	U
WD-02-0713	07/02/13	0.0078		NA		NA		NA		0.0093		<0.00046	U	<0.00047	U
WD-02-0114	01/17/14	<0.00034	U	NA		NA		NA		0.0036		<0.00046	U	<0.00047	U
WD-02-0714	07/07/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WD-02-0115	01/09/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WD-02-0116	01/08/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
WD-02-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
WD-02-0617	06/07/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
WE-01-0211	02/26/11	<0.000122	JJU-RS	NA		NA		NA		<0.00006	UJUL	NA		<0.00009	UJUL
WE-01-0711	07/14/11	<0.00008	U	NA		NA		NA		<0.00006	U	NA		<0.00009	U
WE-01-1211	12/14/11	<0.00025	U	NA		NA		NA		<0.00024	U	0.00037	J	<0.0003	U
WE-01-0412	04/30/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
WE-01-0113	01/23/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
WE-01-0713	07/03/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
WE-01-0114	01/17/14	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
WE-01-0714	07/01/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WE-01-0115	01/08/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WE-01-0116	01/07/16	<0.00047	U	<0.00049	U	<0.00046	U	<0.0012	U	<0.00052	U	<0.00038	U	<0.00047	U
WE-01-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
WE-01-1216	12/20/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
WE-01-0617	06/06/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U
WE-02-0714	07/02/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WE-03-0714	07/07/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WE-03-0714	07/07/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WE-03-0714	07/07/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U

Sample ID	Chemical CAS No. Tier 1 PCL	Benzene 71-43-2 0.005		Toluene 108-88-3 1.00		Ethylbenzene 100-41-4 0.70		Xylenes 1330-20-7 10		cis-1,2-Dichloroethylene 156-59-2 0.070		Tetrachloroethylene 127-18-4 0.005		trans-1,2-Dichloroethylene 156-60-5 0.10	
	Date	Val	Qual	Val	Qual	Val	Qual	Val	Qual	Val	Qual	Val	Qual	Val	Qual
WT-01-0711	07/14/11	<0.00008	U	NA		NA		NA		<0.00005	U	NA		<0.00009	U
WT-01-1211	12/12/11	<0.00025	U	NA		NA		NA		<0.00034	U	<0.00033	U	<0.0003	U
WT-01-0412	04/25/12	<0.00025	U	NA		NA		NA		<0.00024	U	<0.00033	U	<0.00030	U
WT-01-0113	01/23/13	<0.00034	U	NA		NA		NA		<0.00040	U	<0.00046	U	<0.00047	U
WT-01-0713	06/28/13	<0.00034	U	NA		NA		NA		<0.0004	U	<0.00046	U	<0.00047	U
WT-01-0114	01/16/14	<0.00034	U	NA		NA		NA		<0.0004	U	<0.00046	U	<0.00047	U
WT-01-0714	07/02/14	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WT-01-0115	01/07/15	<0.00034	U	NA		NA		NA		<0.00040	U	NA		<0.00047	U
WT-01-1216	12/30/16	<0.00047	U	NA		NA		NA		<0.00052	U	NA		<0.00047	U
WT-01-0617	06/06/17	<0.00030	U	NA		NA		NA		<0.00030	U	NA		<0.00030	U

Notes:
"<" - Not detected: the analyte was analyzed for, but was not detected above the level of the associated value.
Protective Concentration Level (PCL) values taken from Texas Risk Reduction Program (TRRP) Tier 1 Table 3 - Residential Groundwater Ingestion ($^{GW}GW_{ing}$ [2]) for 0.5-acre, effective June 29, 2012.
Bold, yellow-highlight indicates sample above TRRP Tier 1 Residential Groundwater PCL.

U - Not detected
J - Result or detection limit is an estimated value
I - Result or detection limit bias was indeterminate
B - Analyte was detected in an associated blank sample
FD - Field Duplicate
H - Result or detection limit was biased high
I - Result or detection limit bias was indeterminate.
ICAL - Initial calibration result
L - Bias in sample result likely to be low
LCS - Laboratory control sample recovery evaluation criteria not met
MS - Matrix Spike
PR - Preservation requirement not met
RB - Rinsate Blank
SDL - Sample Detection Limit
SUR - Surrogate
NA - Not Analyzed

Sample ID	Chemical CAS No. Tier I PCL Date	1,1-Dichloroethylene 75-35-4 0.007 Val	Qual	Trichloroethylene 79-01-6 0.005 Val	Qual	Vinyl chloride 75-01-4 0.002 Val	Qual	Total Dissolved Solids -- -- Val	Qual	Oil And Grease -- -- Val	Qual	Total Organic Carbon -- -- Val	Qual	Aroclor 1016 12674-11-2 -- Val	Qual	Aroclor 1221 11104-28-2 -- Val	Qual
MW-8	01/13/05	NA		<0.00020	U	NA		759		1.1		0.2		<0.00050	U	<0.00050	U
MW-8	01/25/05	NA		<0.00025	U	NA		833		<0.51	U	1.55		<0.00014	U	<0.00014	U
MW-8	01/09/07	NA		<0.00025	U	NA		1410		<0.51	U	0.771		<0.00015	U	<0.00015	U
MW-8	05/31/07	NA		<0.00063	U	NA		1230		<1.4	U	0.5		<0.00051	U;UJL-SUR,ICAL	<0.00051	U;UJL-SUR,ICAL
MW-8	07/12/07	NA		<0.00063	U	NA		1140		<1.4	U	0.5		<0.00050	U	<0.00050	U
MW-8	10/09/07	NA		<0.00063	U	NA		12500		<1.4	U	0.84	B	<0.00058	U	<0.00058	U
MW-8-0108	01/07/08	NA		<0.00063	U	NA		1620		<1.4	U	<1.4	U-RB	<0.00058	U;UJL-SUR	<0.00058	U;UJL-SUR
MW-8-0408	04/28/08	NA		<0.00047	U	NA		1380		<1.4	U	0.82	B	<0.00058	U;UJL-SUR	<0.00058	U;UJL-SUR
MW-8-0708	07/02/08	NA		<0.00047	U	NA		1950		<1.4	U	0.33	B	<0.00058	U;UJL-SUR	<0.00058	U;UJL-SUR
MW-8-0109	01/03/09	NA		<0.00047	U	NA		1970		<0.85	U	<0.55	U	<0.00058	U	<0.00058	U
MW-8-0509	05/10/09	NA		<0.00047	U	NA		2460		3.8		0.59	B	<0.00054	U	<0.00054	U
MW-08-0710	07/25/10	<0.00050	U	<0.00052	U	<0.0010	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00022	U;UJL-SUR
MW-8-0211	02/24/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-08-0711	07/13/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-8-1211	12/14/11	<0.00040	U	<0.00035	U	<0.00040	U	NA		NA		NA		<0.00015	U	<0.00022	U
MW-8-0412	04/25/12	<0.00040	U	<0.00035	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-8-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-8-0713	07/02/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00024	U	<0.00023	U
MW-8-0114	01/16/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-8-0714	07/03/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00022	U	<0.00021	U
MW-8-0115	01/05/15	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-8-0116	01/05/16	<0.00063	U	<0.00048	U	<0.00057	U;UJ-LCS	NA		NA		NA		<0.00022	U	<0.00021	U
MW-8-1216	12/21/16	<0.00063	U;UJ-CCAL	<0.00048	U	<0.00057	U;UJ-CCAL	NA		NA		NA		<0.00012	U	<0.00020	U
MW-8-0617	06/07/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000059	U	<0.000094	U
MW-10	01/14/05	NA		<0.00020	U	NA		2210		1.3		1.4		<0.00050	U	<0.00050	U
MW-10	01/26/05	NA		<0.00025	U	NA		12600		0.7		2.58		<0.00014	U	<0.00014	U
MW-10	01/09/07	NA		<0.00025	U	NA		13600		<0.51	U	2.34		<0.00015	U	<0.00015	U
MW-10	05/30/07	NA		<0.00063	U	NA		12400		<1.4	U	2		<0.00051	U;UJ, ICAL, I	<0.00051	U;UJ, ICAL, I
MW-10	07/13/07	NA		<0.00063	U	NA		15700		<1.4	U	1.9		<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-10	10/09/07	NA		<0.00063	U	NA		890		<1.4	U	2.2		<0.00050	U	<0.00050	U
MW-10-0108	01/07/08	NA		<0.00047	U	NA		5580		<1.4	U	<2.4	U-RB	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-10-0408	04/28/08	NA		<0.00047	U	NA		14600		<1.4	U	2.6		<0.00050	U	<0.00050	U
MW-10-0708	07/02/08	NA		<0.00047	U	NA		15800		<1.4	U	2.3		<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-10-0109	01/03/09	NA		<0.00047	U	NA		11100		<0.85	U	2.5		<0.00058	U	<0.00058	U
MW-10-0509	05/10/09	NA		<0.00047	U	NA		15300		4.7		2.4		<0.00054	U	<0.00054	U
MW-10-0710	07/25/10	<0.00050	U	<0.00052	U	<0.0010	U	NA		NA		NA		<0.00013	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-10-0211	02/24/11	<0.00019	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00011	U;UJL-SUR	NA		NA		NA		<0.000267	U	<0.000217	U
MW-10-0711	07/13/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-10-1211	12/14/11	<0.00040	U	<0.00035	U	<0.00040	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-10-0412	04/25/12	<0.00040	U	<0.00035	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-10-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-10-0713	07/03/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00023	U	<0.00022	U
MW-10-0114	01/16/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-10-0714	07/03/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00022	U	<0.00021	U
MW-10-0115	01/07/15	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-10-0116	01/05/16	<0.00063	U	<0.00048	U	<0.00057	U;UJ-LCS	NA		NA		NA		<0.00022	U	<0.00021	U
MW-10-1216	12/20/16	<0.00063	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U	<0.00020	U
MW-10-0617	06/07/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000062	U	<0.000097	U
MW-11	01/13/05	NA		<0.00020	U	NA		1330		2.9		1.3		<0.00050	U	<0.00050	U
MW-11	01/26/05	NA		<0.00025	U	NA		895		<0.51	U	3.11		<0.00014	U	<0.00014	U
MW-11	01/10/07	NA		<0.00025	U	NA		2750		<0.51	U	2.6		<0.00015	U	<0.00015	U
MW-11	05/31/07	NA		<0.00063	U	NA		1350		<1.4	U	2		<0.00050	U;UJ, ICAL, I	<0.00050	U;UJ, ICAL, I
MW-11	07/12/07	NA		<0.00063	U	NA		1310		<1.4	U	2.4		<0.00050	U	<0.00050	U
MW-11	10/10/07	NA		<0.00063	U	NA		10	B	<1.4	U	2.5		<0.00050	U	<0.00050	U
MW-11-0108	01/07/08	NA		<0.00047	U	NA		895		<1.4	U	<2.5	U-RB	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-11-0508	04/28/08	NA		<0.00047	U	NA		1230		<1.4	U	2.8		<0.00050	U	<0.00050	U
MW-11-0708	07/01/08	NA		<0.00047	U	NA		915		<1.4	U	2.6		<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-11-0109	01/03/09	NA		<0.00047	U	NA		1560		1.4	B	1.7		<0.00058	U	<0.00058	U
MW-11-0509	05/10/09	NA		<0.00047	U	NA		1530		2.5		2.1		<0.00054	U	<0.00054	U
MW-11-0710	07/25/10	<0.00050		<0.00052	U	<0.0010	U	NA		NA		NA		<0.00013	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-11-0211	02/25/11	<0.00019	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00011	U;UJL-SUR	NA		NA		NA		<0.000267	U	<0.000217	U
MW-11-0711	07/13/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-11-1211	12/13/11	<0.00040	U	<0.00035	U	<0.00040	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-11-0412	04/25/12	<0.00040	U	<0.00035	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-11-0113	01/22/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-10-0713	07/03/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00023	U	<0.00022	U
MW-11-0114	01/17/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-11-0714	07/02/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00022	U	<0.00021	U
MW-11-0115	01/07/15	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00030	U
MW-11-0116	01/05/16	<0.00063	U	<0.00048	U	<0.00057	U;UJ-LCS	NA		NA		NA		<0.00021	U	<0.00020	U
MW-11-1216	12/20/16	<0.00063	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U	<0.00019	U
MW-11-0617	06/07/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000062	U	<0.000010	U

Sample ID	Chemical CAS No. Tier 1 PCL Date	1,1-Dichloroethylene 75-35-4 0.057 Val	Qual	Tetrachloroethylene 79-01-6 0.005 Val	Qual	Vinyl chloride 75-01-4 0.002 Val	Qual	Total Dissolved Solids -- -- Val	Qual	Oil And Grease -- -- Val	Qual	Total Organic Carbon -- -- Val	Qual	Aroclor 1016 12674-11-2 -- Val	Qual	Aroclor 1221 11104-28-2 -- Val	Qual
MW-17	01/13/05	NA		<0.00200	U	NA		3880		1.7		1.9		<0.00050	U	<0.00050	U
MW-17	01/25/05	NA		<0.00025	U	NA		4310		<0.51	U	1.61		<0.00014	U	<0.00014	U
MW-17	01/10/07	NA		<0.00025	U	NA		5340		<0.51	U	1.78		<0.00016	U	<0.00016	U
MW-17	05/30/07	NA		<0.00053	U	NA		5190		<1.4	U	2		<0.00051	U;UJL-SUR	<0.00051	U;UJL-SUR
MW-17	07/13/07	NA		<0.00053	U	NA		4130		3		2		<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-17	10/11/07	NA		<0.00053	U	NA		4060		<1.4	U	1.7		<0.00050	U	<0.00050	U
MW-17-0108	01/07/08	NA		<0.00047	U	NA		1930		<1.4	U	<1.8	U-RB	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-17-0408	04/29/08	NA		<0.00047	U	NA		5030		<1.4	U	2.1		<0.00050	U	<0.00050	U;UJL-SUR
MW-17-0708	07/31/08	NA		<0.00047	U	NA		4250		<1.4	U	1.8		<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-17-0109	01/08/09	NA		<0.00047	U	NA		4950		38.6		1.2		<0.00050	U	<0.00050	U
MW-17-0509	05/11/09	NA		<0.00047	U	NA		4980		5.3		1.5		<0.00054	U	<0.00054	U
MW17-0710	07/20/10	<0.00050	U	<0.00052	U	<0.0010	U	NA		NA		NA		<0.00016	U	<0.00016	U
MW-17-0211	02/25/11	<0.00019	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00011	U;UJL-SUR	NA		NA		NA		<0.000267	U	<0.000217	U
MW-17-0711	07/13/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-17-1211	12/13/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00021	U
MW-17-0412	04/25/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-17-0113	01/22/13	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-17-0713	07/03/13	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00022	U	<0.00021	U
MW-17-0114	01/17/14	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-17-0714	07/01/14	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00022	U	<0.00022	U
MW-17-0115	01/07/15	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-17-0116	01/06/16	<0.00063	U	<0.00048	U	<0.00057	U;UJ-LC3	NA		NA		NA		<0.00022	U	<0.00022	U
MW-17-1216	12/20/16	<0.00063	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00019	U	<0.00019	U
MW-17-0617	06/07/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000962	U	<0.000618	U
MW-22	01/13/05	NA		<0.0020	U	NA		388		3.7		3		<0.00050	U	<0.00050	U
MW-22	01/26/05	NA		<0.00025	U	NA		423		0.6		0.781		<0.00014	U	<0.00014	U
MW-22	01/10/07	NA		<0.00025	U	NA		492		<0.51	U	0.775		<0.00015	U	<0.00015	U
MW-22	05/30/07	NA		<0.00053	U	NA		391		<1.4	U	0.5		<0.00051	U;UJ, ICAL, I	<0.00051	U;UJ, ICAL, I
MW-22	07/12/07	NA		<0.00053	U	NA		406		<1.4	U	0.7		<0.00050	U	<0.00050	U
MW-22	10/03/07	NA		<0.00053	U	NA		439		<1.4	U	1		<0.00050	U	<0.00050	U
MW-22-0108	01/08/08	NA		<0.00047	U	NA		378		<1.4	U	<0.55	B;U-RB	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-22-0408	04/29/08	NA		<0.00047	U	NA		416		<1.4	U	1.1		<0.00050	U	<0.00050	U;UJL-SUR
MW-22-0708	07/31/08	NA		<0.00047	U	NA		381		<1.4	U	0.41	B	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-22-0109	01/08/09	NA		<0.00047	U	NA		433		3		<0.55	U	<0.00050	U	<0.00050	U
MW-22-0609	06/11/09	NA		<0.00047	U	NA		456		<0.5	U	0.69	B	<0.00053	U	<0.00053	U
MW-22-0710	07/20/10	<0.00050	U	<0.00053	U	<0.0010	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-22-0211	02/25/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-22-0711	07/13/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-22-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00021	U
MW-22-0412	04/26/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-22-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-22-0713	07/02/13	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00024	U	<0.00023	U
MW-22-0114	01/16/14	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-22-0714	07/01/14	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00023	U	<0.00022	U
MW-22-0115	01/02/15	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-22-0116	01/06/16	<0.00063	U	<0.00048	U	<0.00057	U;UJ-LC3	NA		NA		NA		<0.00022	U	<0.00021	U
MW-22-1216	12/20/16	<0.00063	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-22-0617	06/07/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000962	U	<0.000599	U
MW-23	01/14/05	NA		<0.0020	U	NA		458		2		0.3		<0.00050	U	<0.00050	U
MW-23	01/26/05	NA		<0.00025	U	NA		431		0.7		1.29		<0.00014	U	<0.00014	U
MW-23	01/09/07	NA		<0.00025	U	NA		445		<0.51	U	0.52	J	<0.00015	U	<0.00015	U
MW-23	05/30/07	NA		<0.00053	U	NA		416		<1.4		0.4		<0.00051	U;UJ, ICAL, I	<0.00051	U;UJ, ICAL, I
MW-23	07/13/07	NA		<0.00053	U	NA		511		1.6		1.1		<0.0010	U	<0.0010	U
MW-23	10/03/07	NA		<0.00053	U	NA		474		<1.4	U	0.73	B	<0.00050	U	<0.00050	U
MW-23-0108	01/07/08	NA		<0.00047	U	NA		436		<1.4	U	<0.79	B;U-RB	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-23-0408	04/29/08	NA		<0.00047	U	NA		493		1.5	B	0.58	B	<0.00050	U	<0.00050	U;UJL-SUR
MW-23-0708	07/02/08	NA		<0.00047	U	NA		1840		<1.4	U	0.37	B	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-23-0109	01/08/09	NA		<0.00047	U	NA		459		27.2		<0.55	U	<0.00050	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-23-0509	05/10/09	NA		<0.00047	U	NA		442		3.2		0.49	B	<0.00051	U	<0.00051	U
MW-23-0710	07/26/10	<0.00050	U	<0.00052	U	<0.0010	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-23-0211	02/24/11	<0.00019	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00011	U;UJL-SUR	NA		NA		NA		<0.000267	U;UJL-SUR	<0.000217	U;UJL-SUR
MW-23-0711	07/12/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-23-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-23-0412	04/26/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-23-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-23-0713	07/02/13	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00023	U;UJL-SUR	<0.00022	U;UJL-SUR
MW-23-0114	01/17/14	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	0.00057	
MW-23-0714	07/07/14	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	0.00028	J
MW-23-0115	01/07/15	<0.00045	U	<0.00049	U	<0.00078	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-23-0116	01/07/16	<0.00063	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00021	U	0.0022	
MW-23-1216	12/20/16	<0.00063	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-23-0617	06/06/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000962	U	<0.000599	U

Sample ID	Chemical CAS No. Tier 1 PQL Date	1,1-Dichloroethylene 75-35-4 0.007 Val	Qual	Trichloroethylene 79-01-6 0.005 Val	Qual	Vinyl chloride 75-01-4 0.002 Val	Qual	Total Dissolved Solids -- -- Val	Qual	Oil And Grease -- -- Val	Qual	Total Organic Carbon -- -- Val	Qual	Aroclor 1016 12674-11-2 -- Val	Qual	Aroclor 1221 11104-28-2 -- Val	Qual
MW-24	01/13/05	NA		<0.0020	U	NA		1310		2.5		0.2		<0.00050	U	<0.00050	U
MW-24	01/26/06	NA		<0.00025	U	NA		1350		<0.51	U	1.14		<0.00014	U	<0.00014	U
MW-24	01/09/07	NA		0.001	J	NA		4830		<0.51	U	0.753	J	<0.00015	U	<0.00015	U
MW-24	05/31/07	NA		0.0011		NA		50100		<1.4		1		<0.00050	U,UJ, ICAL, I	<0.00050	U,UJ, ICAL, I
MW-24	07/12/07	NA		0.00093		NA		4800		6		0.5		<0.00050	U	<0.00050	U
MW-24	10/09/07	NA		<0.00063	U	NA		1340		<1.4	U	4.2		<0.00050	U	<0.00050	U
MW-24-0108	01/08/08	NA		<0.00047	U	NA		1250		<1.4	U	<4.7	U-RB	<0.00050	U,UJL-SUR	<0.00050	U,UJL-SUR
MW-24-0408	04/29/08	NA		<0.00047	U	NA		1390		<1.4	U	3.5		<0.00050	U	<0.00050	U,UJL-SUR
MW-24-0708	07/02/08	NA		0.00093	J	NA		3040		<1.4	U	<0.21	B,U-RB	<0.00050	U	<0.00050	U
MW-24-0109	01/09/09	NA		<0.00047	U	NA		1430		<0.85	U	1.6		<0.00050	U	<0.00050	U
MW-24-0609	06/10/09	NA		<0.00047	U	NA		1560		6		1.9		<0.00054	U,UJL-SUR	<0.00054	U,UJL-SUR
MW-24-0710	07/28/10	<0.00050		<0.00053	U	<0.0010	U	NA		NA		NA		<0.00013	U,UJL-SUR	<0.00020	U,UJL-SUR
MW-24-0211	02/24/11	<0.00019	U,UJL-SUR	<0.00018	U,UJL-SUR	<0.00011	U,UJL-SUR	NA		NA		NA		<0.000267	U	<0.000217	U
MW-24-0711	07/13/11	<0.00019	U	<0.00018	U	0.00048		NA		NA		NA		<0.000267	U	<0.000217	U
MW-24-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00021	U
MW-24-0412	04/26/12	<0.00040	U	<0.00036	U	0.0040		NA		NA		NA		<0.00013	U	<0.00020	U
MW-24-0113	01/23/13	<0.00045	U	<0.00049	U	0.0014	JL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-24-0713	07/02/13	<0.00045	U	<0.00049	U	<0.0084	JL-FR	NA		NA		NA		<0.00024	U	<0.00022	U
MW-24-0114	01/17/14	<0.00045	U	<0.00049	U	0.0116	JL-FR	NA		NA		NA		<0.00031	U	<0.00030	U
MW-24-0714	07/03/14	<0.00045	U	<0.00049	U	0.0084	JL-FR	NA		NA		NA		<0.66	U;UI-SDL	<0.65	U;UI-SDL
MW-24-0115	01/07/15	<0.00045	U	<0.00049	U	0.0084	JL-FR	NA		NA		NA		<0.0021	U;UI-SDL	<0.0020	U;UI-SDL
MW-24-0116	01/07/16	<0.00053	U	<0.00048	U	0.0088		NA		NA		NA		<0.0021	U;UI-SDL	<0.0020	U;UI-SDL
MW-24-1216	12/20/16	<0.00053	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U	<0.00020	U
MW-24-0517	05/07/17	<0.00030	U	<0.00030	U	0.00030	J	NA		NA		NA		<0.000055	U	<0.000054	U
MW-25	01/25/06	NA		<0.00025	U	NA		2840		0.6		1.95		<0.00014	U	<0.00014	U
MW-25	01/09/07	NA		<0.00025	U	NA		4910		<0.51	U	0.386	J	<0.00015	U	<0.00015	U
MW-25	05/30/07	NA		<0.00063	U	NA		4940		<1.4	U	0.4		<0.00050	U,UJ, ICAL, I	<0.00050	U,UJ, ICAL, I
MW-25	07/13/07	NA		<0.00063	U	NA		5930		<1.4	U	0.4		<0.00050	U,UJL-SUR	<0.00050	U,UJL-SUR
MW-25	10/09/07	NA		<0.00063	U	NA		3170		<1.4	U	1.9		<0.00050	U	<0.00050	U
MW-25-0108	01/07/08	NA		<0.00047	U	NA		2380		<1.4	U	<1.5	U-RB	<0.00050	U,UJL-SUR	<0.00050	U,UJL-SUR
MW-25-0408	04/29/08	NA		<0.00047	U	NA		5030		<1.4	U	0.63	B	<0.00050	U	<0.00050	U,UJL-SUR
MW-25-0708	07/02/08	NA		<0.00047	U	NA		5410		<1.4	U	<0.25	B,U-RB	<0.00050	U,UJL-SUR	<0.00050	U,UJL-SUR
MW-25-0109	01/08/09	NA		<0.00047	U	NA		5170		<0.85	U	<0.55		<0.00050	U	<0.00050	U
MW-25-0609	06/10/09	NA		<0.00047	U	NA		5720		1.6	B	0.47	B	<0.00014	U	<0.00031	U
MW-25-0710	07/28/10	<0.00050	U	<0.00052	U	<0.0010	U	NA		NA		NA		<0.00013	U,UJL-SUR	<0.00020	U,UJL-SUR
MW-25-0211	02/24/11	<0.00019	U,UJL-SUR	<0.00018	U,UJL-SUR	<0.00011	U,UJL-SUR	NA		NA		NA		<0.000267	U	<0.000217	U
MW-25-0711	07/13/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-25-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00021	U
MW-25-0412	04/26/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-25-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-25-0713	07/02/13	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00024	U	<0.00022	U
MW-25-0114	01/16/14	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00031	U	<0.00030	U
MW-25-0714	07/03/14	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00024	U	<0.00022	U
MW-25-0115	01/07/15	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-25-0116	01/05/16	<0.00053	U	<0.00048	U	<0.00057	U,UJ-LCS	NA		NA		NA		<0.00032	U	<0.00031	U
MW-25-1216	12/21/16	<0.00053	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U	<0.00019	U
MW-25-0517	05/07/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000026	U	<0.000096	U
MW-25	01/13/05	NA		<0.0020	U	NA		10700		1.4		1.2		<0.0026	U	0.0357	
MW-25	01/26/06	NA		0.007		NA		31700		1.6		5.21		<0.00014	U	<0.00014	U
MW-25	01/11/07	NA		0.16		NA		50200		2.1	J	4.56		<0.00015	U	<0.00015	U
MW-25	05/31/07	NA		0.186		NA		3930		2.6		5		<0.00050	U,UJ, ICAL, I	<0.00050	U,UJ, ICAL, I
MW-25	07/12/07	NA		0.0283		NA		53300		<1.4	U	4.8		<0.00050	U,UJL-SUR	0.169	JL-SUR
MW-25	10/09/07	NA		0.00071	J	NA		18300		<1.4	U,UJ	5.9		<0.00050	U,UJL-SUR	<0.00050	U,UJL-SUR
MW-25-0108	01/08/08	NA		0.0326	JH-FD	NA		24400	JH-FD	<1.4	U	6.3		<0.00050	U,UJL-SUR	0.0367	JL-SUR,FD
MW-25-0408	04/29/08	NA		0.0072	JH-FD	NA		25500		4.7	JH-FD	5.5		<0.00050	U	<0.00050	U,UJL-SUR
MW-25-0708	07/02/08	NA		0.0023		NA		27300		<1.4	U	7.2		<0.00050	UJL-SUR,MS	0.0468	JL-SUR,FD
MW-25-0109	01/07/09	NA		0.008		NA		43000		<0.85	U	4.2		0.0054	JL-SUR	0.0716	JL-SUR
MW-25-0609	06/10/09	NA		<0.00047	U	NA		26200		<0.9	U	6		0.0036		0.0252	
MW-25-0710	07/20/10	<0.00050	U	<0.00053	U	<0.0010	U	NA		NA		NA		0.0037	JL-SUR,	<0.00022	U,UJL-SUR
MW-25-0211	02/24/11	<0.00019	U,UJL-SUR	<0.00018	U,UJL-SUR	<0.00011	U,UJL-SUR	NA		NA		NA		<0.000267	U	<0.000217	U
MW-25-0711	07/13/11	<0.00019	U	<0.00018	U	0.00176	J	NA		NA		NA		<0.000267	U	<0.000217	U
MW-25-1211	12/13/11	<0.00040	U	<0.00036	U	0.006	JH-FD	NA		NA		NA		0.0035	JH-SUR, MS	<0.00022	U
MW-25-0412	04/26/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-25-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-25-0713	07/03/13	<0.00045	U	0.0011		0.0167	JL-FR	NA		NA		NA		<0.00024	U,UJL-SUR	<0.00022	U,UJL-SUR
MW-25-0114	01/17/14	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-25-0714	07/03/14	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00024	U	<0.00022	U
MW-25-0115	01/07/15	<0.00045	U	<0.00049	U	<0.00079	U,UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-25-0116	01/05/16	<0.00053	U	<0.00048	U	0.0022		NA		NA		NA		<0.00021	U	<0.00020	U
MW-25-1216	12/20/16	<0.00053	U	<0.00048	U	0.0009	J	NA		NA		NA		<0.00012	U	<0.00020	U
MW-25-0517	05/07/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000062	U	<0.000099	U

Sample ID	Chemical CAS No. Tier 1 PQL Date	1,1-Dichloroethylene 75-35-4 0.007 Val	Qual	Trichloroethylene 79-01-6 0.005 Val	Qual	Vinyl chloride 75-01-4 0.002 Val	Qual	Total Dissolved Solids – – Val	Qual	Oil And Grease – – Val	Qual	Total Organic Carbon – – Val	Qual	Aroclor 1016 12674-11-2 – Val	Qual	Aroclor 1221 11104-28-2 – Val	Qual
MW-101-0710	07/27/10	<0.00050	U	<0.00050	U	<0.0010	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-101-0211	02/26/11	<0.00019	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00011	U;UJL-SUR	NA		NA		NA		<0.000266	U;UJL-SUR	<0.000217	U;UJL-SUR
MW-101-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U;UJL-SUR	<0.000217	U;UJL-SUR
MW-101-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-101-0412	04/30/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-101-0113	01/25/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00026	U
MW-101-0713	07/03/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00022	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-101-0114	01/16/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00026	U
Before July 2014 this well was thought be MW-101. However, gauging with a string and weight confirmed a total depth of 860 feet, indicating the well was actually MW-104. Data shown above this entry is for MW-104, and below this entry is for MW-101.																	
MW-101-0714	07/07/14	<0.00048	U	<0.00049	U	0.0036	JL-FR	NA		NA		NA		<0.023	U;UJ-SDL	<0.022	U;UJ-SDL
MW-101-0115	01/07/15	<0.00045	U	<0.00049	U	0.0031	JL-FR	NA		NA		NA		<0.011	U;UJ-SDL	<0.010	U;UJ-SDL
MW-101-0116	01/07/16	<0.00063	U	<0.00049	U	0.0028		NA		NA		NA		<0.023	U;UJ-SDL	<0.022	U;UJ-SDL
MW-101-1216	12/20/16	<0.00063	U	<0.00049	U	0.0039		NA		NA		NA		<0.062	U;UJ-SDL	<0.059	U;UJ-SDL
MW-101-0617	06/06/17	<0.00030	U	<0.00030	U	0.0014		NA		NA		NA		<0.0055	U;UJ-SDL	<0.0055	U;UJ-SDL
MW-102	01/17/05	NA		<0.0020	U	NA		318		0.56		1.1		<0.05	U	<0.05	U
MW-102	01/26/06	NA		<0.00025	U	NA		326		1.5		0.935		<0.00014	U	<0.00014	U
MW-102	05/31/07	NA		<0.00053	U	NA		550		<1.4	U	1		<0.00051	U;UJ, ICAL_I	<0.00051	U;UJ, ICAL_I
MW-102	10/10/07	NA		<0.00053	U	NA		348		<1.4	U	3	J-FD	<0.00050	U	<0.00050	U
MW-102-0109	01/09/08	NA		<0.0020	U	NA		549		<1.4	U	<1.1	U-RB	<0.0025	U;UJL-SUR	0.0364	JL-SUR
MW-102-0408	04/30/08	NA		<0.00047	U	NA		388		4.7		<3.5	U-RB	0.0538	U	<0.00050	U
MW-102-0708	07/02/08	NA		<0.00047	U	NA		332	J-FD	<1.4	U	1.5		<0.00050	U;UJL-SUR	0.0564	U
MW-102-0109	01/09/09	NA		<0.00047	U	NA		551		4.7		<0.55	U	0.0231	U	<0.00050	U
MW-102-0609	06/11/09	NA		<0.00047	U	NA		523		1.6	B	0.64	B	0.0204	U	0.0641	U
MW-102-0710	07/27/10	<0.00050	U	<0.00052	U	0.0011	J	NA		NA		NA		0.0161	JL-SUR,FD	<0.00022	U;UJL-SUR
MW-102-0211	02/26/11	0.0013		<0.00018	U	0.0016	J	NA		NA		NA		<0.00532	U	<0.00433	U
MW-102-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.0040	U	<0.00326	U
MW-102-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00021	U
MW-102-0412	04/30/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-102-0113	01/24/13	<0.00045	U	<0.00049	U	0.0012	JL-FR	NA		NA		NA		<0.00021	U	<0.00026	U
MW-102-0713	07/03/13	<0.00045	U	<0.00049	U	0.0047	JL-FR	NA		NA		NA		<0.00023	U	<0.00022	U
MW-102-0114	01/16/14	<0.00045	U	<0.00049	U	0.0049	JL-FR	NA		NA		NA		<0.00021	U	<0.00026	U
Before July 2014 this well was thought to be MW-102. However, gauging with a string and weight confirmed a total depth of 113 feet, indicating the well was actually MW-101. Data shown above this entry is for MW-101, and below this entry is for MW-102.																	
MW-102-0714	07/07/14	<0.00048	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.0003	U
MW-102-0115	01/08/15	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.0011	U;UJ-SDL	<0.0010	U;UJ-SDL
MW-102-0116	01/08/16	<0.00063	U	<0.00049	U	<0.00057	U	NA		NA		NA		<0.00023	U	<0.00021	U
MW-102-1216	12/19/16	<0.00063	U	<0.00049	U	<0.00057	U	NA		NA		NA		<0.00012	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-102-1216	12/19/16	<0.00063	U	<0.00049	U	<0.00057	U	NA		NA		NA		<0.00012	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-102-0617	06/06/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.000055	U	<0.000095	U
MW-103-0710	07/27/10	<0.00050	U	<0.00052	U	<0.0010	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-103-0211	02/26/11	<0.00019	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00011	U;UJL-SUR	NA		NA		NA		<0.000266	U	<0.000217	U
MW-103-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-103-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00021	U
MW-103-0412	04/30/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-103-0113	01/24/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00026	U
MW-103-0713	07/03/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00024	U	<0.00023	U
This well was not sampled in January or July 2014 because a pump was installed in the well but not connected to power.																	
MW-103-0115	01/08/15	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
MW-103-0116	01/07/16	<0.00063	U	<0.00049	U	<0.00057	U;UJL-LCS	NA		NA		NA		<0.00021	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-103-1216	12/19/16	<0.00063	U	<0.00049	U	<0.00057	U	NA		NA		NA		<0.00012	U;UJL-SUR	<0.00019	U;UJL-SUR
MW-103-0617	06/06/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		<0.00016	U	<0.00030	U
MW-104-0609	06/11/09	NA		<0.00047	U	NA		389		<0.5	U	0.5	B	<0.00056	U;UJL-SUR	<0.00056	U;UJL-SUR
MW-104-0710	07/27/10	<0.00050	U	<0.00052	U	<0.0010	U	NA		NA		NA		<0.00014	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-104-0211	02/26/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000266	U;UJL-SUR	<0.000217	U;UJL-SUR
MW-104-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
MW-104-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00021	U
MW-104-0412	04/30/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
MW-104-0113	01/24/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00026	U
MW-104-0713	07/03/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00023	U	<0.00022	U
MW-104-0114	01/16/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00026	U
Before July 2014 this well was thought to be MW-104. However, video inspection of the well confirmed a total depth of 288 feet, indicating the well was actually MW-102. Data shown above this entry is for MW-102, and below this entry is for MW-104.																	
This well was not sampled in July 2014 because a pump was installed in the well but not connected to power.																	

Sample ID	Chemical CAS No. Tier 1 PQL Date	1,1-Dichloroethylene 75-35-4 0.007 Val	Qual	Trichloroethylene 79-01-6 0.005 Val	Qual	Vinyl chloride 75-01-4 0.002 Val	Qual	Total Dissolved Solids -- -- Val	Qual	Oil And Grease -- -- Val	Qual	Total Organic Carbon -- -- Val	Qual	Aroclor 1016 12674-11-2 -- Val	Qual	Aroclor 1221 11104-28-2 -- Val	Qual
RW-1	01/17/05	NA		<0.0020	U	NA		8080		13.1		343		<0.05	U	<0.05	U
RW-1	01/24/05	NA		<0.00025	U	NA		8560		69		389		<0.00014	U	<0.00014	U
RW-1	02/01/06	NA		<0.00025	U	NA		NA		NA		NA		NA		NA	
RW-2	01/17/05	NA		<0.0020	U	NA		5280		5.3		30		<0.05	U	<0.05	U
RW-2	01/24/06	NA		<0.00025	U	NA		10300		14		7.23		<0.00014	U	<0.00014	U
RW-3	01/16/05	NA		<0.0020	U	NA		5760		2.6		6.5		<0.05	U	<0.05	U
RW-3	01/24/06	NA		0.002		NA		5520		4.8		8.31		<0.00014	U	<0.00014	U
RW-4	01/17/05	NA		<0.0020	U	NA		772		2.4		8		<0.05	U	<0.05	U
RW-4	01/24/06	NA		0.007		NA		13300		5.4		12.8		<0.00014	U	<0.00014	U
RW-5	01/16/05	NA		0.0012		NA		5420		15.1		34		<0.05	U	<0.05	U
RW-5	01/25/06	NA		0.008		NA		4400		25		31.3		<0.00014	U	<0.00014	U
RW-6	01/17/05	NA		<0.0020	U	NA		122		2.5		3.1		<0.05	U	<0.05	U
RW-6	01/25/06	NA		<0.00025	U	NA		459		3.1		3.37		<0.00014	U	<0.00014	U
RW-7	01/16/05	NA		<0.0020	U	NA		998		1.2		8		<0.05	U	<0.05	U
RW-7	01/25/06	NA		<0.00025	U	NA		1400		<0.51	U	2.35		<0.00014	U	<0.00014	U
RW-8	01/16/05	NA		<0.0020	U	NA		3830		5.1		4.2		<0.00050	U	<0.00050	U
RW-8	01/25/06	NA		<0.00035	U	NA		5100		<0.51	U	3.19		<0.00014	U	<0.00014	U
RW-9	01/16/05	NA		<0.0020	U	NA		1350		1.7		1.1		<0.0025	U	<0.0025	U
RW-9	01/25/06	NA		<0.00025	U	NA		2200		<0.51	U	4.99		<0.00014	U	<0.00014	U
RW-10	01/17/05	NA		<0.0020	U	NA		10400		9.3		24		<0.0010	U	<0.0010	U
RW-10	01/25/06	NA		<0.00025	U	NA		13300		61		10.5		<0.00014	U	<0.00014	U
FB-01-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		NA		NA	
FB-01-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		NA		NA	
FB-01-0412	04/26/12			<0.00036	U	<0.00040	U	NA		NA		NA		NA		NA	
WD-01-0211	02/24/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
WD-01-0711	07/13/11	<0.00019	U	<0.00018	U	0.00187	J	NA		NA		NA		<0.000267	U	<0.000217	U
WD-01-1211	12/13/11	<0.00040	U	<0.00036	U	0.0031	JH-FD	NA		NA		NA		0.0037	JH-SUR	<0.00021	U
WD-01-0412	04/25/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
WD-01-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
WD-01-0713	07/02/13	<0.00045	U	<0.00049	U	0.0053	JL-FR	NA		NA		NA		<0.00022	U	<0.00021	U
WD-01-0114	01/17/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
WD-01-0714	07/02/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00024	U	<0.00023	U
WD-01-0115	01/08/15	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
WD-01-0115	01/08/15	<0.00053	U	<0.00048	U	0.0021	JH-LCS	NA		NA		NA		<0.00021	U	<0.00020	U
WD-01-1215	12/30/15	<0.00053	U	<0.00048	U	0.0034		NA		NA		NA		<0.062	U;U-SDL	<0.099	U;U-SDL
WD-01-0617	06/07/17	<0.00030	U	<0.00030	U	<0.00050	U	NA		NA		NA		<0.000062	U	<0.000099	U
WD-02-0211	02/25/11	0.0013	JL-SUR	<0.00018	U;UJL-SUR	0.00154	J;JL-SUR	NA		NA		NA		<0.00533	U	<0.00433	U
WD-02-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.00401	U	<0.00327	U
WD-02-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00014	U	<0.00023	U
WD-02-0412	04/27/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
WD-02-0113	01/22/13	<0.00045	U	<0.00049	U	0.0012	JL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
WD-02-0713	07/03/13	<0.00045	U	0.00099	J	0.0152	JL-FR	NA		NA		NA		<0.00024	U;UJL-SUR	<0.00023	U;UJL-SUR
WD-02-0114	01/17/14	<0.00045	U	<0.00049	U	0.0042	JL-FR	NA		NA		NA		<0.00021	U	<0.00020	U
WD-02-0714	07/07/14	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.00021	U	<0.0002	U
WD-02-0115	01/08/15	<0.00045	U	<0.00049	U	<0.00079	U;UJL-FR	NA		NA		NA		<0.0011	U;U-SDL	<0.0010	U;U-SDL
WD-02-0115	01/08/15	<0.00053	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00022	U	<0.00021	U
WD-02-1215	12/30/15	<0.00053	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U	<0.00020	U
WD-02-0617	06/07/17	<0.00030	U	<0.00030	U	<0.00050	U	NA		NA		NA		<0.000066	U	<0.00010	U
WE-01-0211	02/25/11	<0.00019	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00011	U;UJL-SUR	NA		NA		NA		<0.000266	U;UJL-SUR	<0.000217	U;UJL-SUR
WE-01-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		<0.000267	U	<0.000217	U
WE-01-1211	12/14/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00022	U;UJL-SUR	<0.00033	U;UJL-SUR
WE-01-0412	04/30/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		<0.00013	U	<0.00020	U
WE-01-0113	01/23/13	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00021	U	<0.00020	U
WE-01-0713	07/03/13	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00023	U	<0.00023	U
WE-01-0114	01/17/14	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00021	U	<0.00020	U
WE-01-0714	07/01/14	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00022	U	<0.00021	U
WE-01-0115	01/08/15	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00021	U	<0.00020	U
WE-01-0115	01/07/15	<0.00053	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00021	U	<0.00020	U
WE-01-1215	12/30/15	<0.00053	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U	<0.00020	U
WE-01-1215	12/30/15	<0.00053	U	<0.00048	U	<0.00057	U	NA		NA		NA		<0.00012	U	<0.00020	U
WE-01-0617	06/06/17	<0.00030	U	<0.00030	U	<0.00050	U	NA		NA		NA		<0.000066	U	<0.00011	U
WE-02-0714	07/02/14	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00023	U	0.00041	J
WE-03-0714	07/07/14	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00021	U	<0.0002	U
WE-03-0714	07/07/14	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00021	U	<0.0002	U
WE-03-0714	07/07/14	<0.00045	U	<0.00049	U	<0.00079	U	NA		NA		NA		<0.00021	U	<0.0002	U

Sample ID	Chemical CAS No. Tier 1 PCL Date	1,1-Dichloroethylene 75-35-4 0.007 Val	Qual	Trichloroethylene 79-01-6 0.005 Val	Qual	Vinyl chloride 75-01-4 0.002 Val	Qual	Total Dissolved Solids -- -- Val	Qual	Oil And Grease -- -- Val	Qual	Total Organic Carbon -- -- Val	Qual	Aroclor 1016 12674-11-2 -- Val	Qual	Aroclor 1221 11104-28-2 -- Val	Qual
WT-01-0711	07/14/11	<0.00019	U	<0.00018	U	<0.00011	U	NA		NA		NA		NA		NA	
WT-01-1211	12/12/11	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		NA		NA	
WT-01-0412	04/25/12	<0.00040	U	<0.00036	U	<0.00040	U	NA		NA		NA		NA		NA	
WT-01-0113	01/23/13	<0.00045	U	<0.00048	U	<0.00079	U	NA		NA		NA		NA		NA	
WT-01-0713	05/28/13	<0.00045	U	<0.00048	U	<0.00079	U	NA		NA		NA		NA		NA	
WT-01-0114	01/16/14	<0.00045	U	<0.00048	U	<0.00079	U	NA		NA		NA		NA		NA	
WT-01-0714	07/02/14	<0.00045	U	<0.00048	U	<0.00079	U	NA		NA		NA		NA		NA	
WT-01-0115	01/07/15	<0.00045	U	<0.00048	U	<0.00079	U	NA		NA		NA		NA		NA	
WT-01-1215	12/20/15	<0.00063	U	<0.00048	U	<0.00057	U	NA		NA		NA		NA		NA	
WT-01-0517	05/05/17	<0.00030	U	<0.00030	U	<0.00030	U	NA		NA		NA		NA		NA	

Notes:
"<" - Not detected: the analyte was analyzed for, but was not detected above the level of the associated value.
Protective Concentration Level (PCL) values taken from Texas Risk Reduction Program (TRRP) Tier 1 Table 3 - Residential Groundwater Ingestion ($^{GW}GW_{ing}{}^{3}$) for 0.5-acre, effective June 29, 2012.
Bold, yellow-highlight indicates sample above TRRP Tier 1 Residential Groundwater PCL.

U - Not detected.
J - Result or detection limit is an estimated value
I - Result or detection limit bias was indeterminate
B - Analyte was detected in an associated blank sample
FD - Field Duplicate
H - Result or detection limit was biased high
I - Result or detection limit bias was indeterminate.
ICAL - Initial calibration result
L - Bias in sample result likely to be low
LCS - Laboratory control sample recovery evaluation criteria not met
MS - Matrix Spike
PR - Preservation requirement not met
RB - Rinsate Blank
SDL - Sample Detection Limit
SUR - Surrogate
NA - Not Analyzed

Sample ID	Chemical CAS No. Tier 1 PCL Date	Aroclor 1232 11141-16-5 -- Val	Qual	Aroclor 1242 53469-21-9 -- Val	Qual	Aroclor 1248 12672-29-6 -- Val	Qual	Aroclor 1254 11097-69-1 -- Val	Qual	Aroclor 1260 11096-82-5 -- Val	Qual	Total PCBs 1336-36-3 0.0005 Val	Qual
MW-8	01/13/05	0.00051	U	<0.00050		<0.00050	U	<0.00050	U	<0.00050	U	0.00051	
MW-8	01/26/06	<0.00012	U	0.0065	J	<0.00014	U	<0.00011	U	<0.00050	U	0.0065	J
MW-8	01/05/07	<0.00012	U	<0.00017		<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-8	05/31/07	<0.00034	U;UJL-SUR,ICAL	<0.00016	U;UJL-SUR,ICAL	<0.00037	U;UJL-SUR,ICAL	<0.00017	U;UJL-SUR,ICAL	<0.00023	U;UJL-SUR,ICAL	<0.00051	U;UJL-SUR,ICAL
MW-8	07/12/07	<0.00034	U	<0.00016		<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-8	10/05/07	<0.00034	U	<0.00016		<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-8-0108	01/07/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-8-0408	04/29/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-8-0708	07/02/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-8-0109	01/08/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-8-0609	06/10/09	<0.00037	U	<0.00017	U	<0.00040	U	<0.00018	U	<0.00025	U	<0.00054	U
MW-08-0710	07/26/10	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00015	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00012	U;UJL-SUR	<0.00022	U;UJL-SUR
MW-8-0211	02/24/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-08-0711	07/13/11	<0.0000593	U	0.000214	J	<0.0000988	U	<0.0000692	U	<0.000168	U	0.000214	J
MW-8-1211	12/14/11	<0.00011	U	<0.00012	U	<0.00015	U	<0.00011	U	<0.00012	U	<0.00022	U
MW-8-0412	04/25/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	<0.00020	U
MW-8-0113	01/03/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-8-0713	07/02/13	<0.00062	U	<0.00014	U	<0.00011	U	<0.00011	U	<0.00014	U	<0.00024	U
MW-8-0114	01/16/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-8-0714	07/03/14	<0.0014	U-RB	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.0014	U-RB
MW-8-0115	01/08/15	0.0011		<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.0011	
MW-8-0116	01/05/16	<0.00016	U	0.00071		0.00037	J	<0.00011	U	<0.00013	U	0.00108	J
MW-8-1216	12/21/16	<0.00022	U	<0.00014	U	<0.00027	U	<0.00013	U	<0.000076	U	<0.00027	U
MW-8-0617	06/07/17	0.00036		<0.000067	U	<0.00013	U	<0.000062	U	<0.000036	U	0.00036	
MW-10	01/14/05	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U
MW-10	01/26/06	<0.00012	U	0.0064	J	<0.00014	U	<0.00011	U	<0.00050	U	0.0064	J
MW-10	01/05/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-10	05/30/07	<0.00035	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00038	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00022	U;UJ, ICAL, I	<0.00051	U;UJ, ICAL, I
MW-10	07/13/07	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-10	10/05/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-10-0108	01/07/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-10-0408	04/29/08	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-10-0708	07/02/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-10-0109	01/08/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-10-0609	06/10/09	<0.00037	U	<0.00017	U	<0.00040	U	<0.00018	U	<0.00025	U	<0.00054	U
MW-10-0710	07/26/10	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-10-0211	02/24/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-10-0711	07/13/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-10-1211	12/14/11	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-10-0412	04/25/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	<0.00020	U
MW-10-0113	01/22/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-10-0713	07/03/13	<0.00019	U	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00023	U
MW-10-0114	01/16/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-10-0714	07/02/14	<0.00016	U	<0.00012	U	<0.00010	U	<0.0001	U	<0.00012	U	<0.00022	U
MW-10-0115	01/07/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-10-0116	01/06/16	<0.00016	U	0.00034	J	0.00013	J	<0.00010	U	<0.00013	U	0.00047	J
MW-10-1216	12/20/16	0.00051	J	<0.00014	U	<0.00027	U	<0.00013	U	<0.000074	U	0.00051	J
MW-10-0617	06/07/17	<0.00011	U	<0.000069	U	<0.00013	U	<0.000063	U	<0.000037	U	<0.00013	U
MW-11	01/13/05	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U
MW-11	01/26/06	<0.00012	U	0.0062	J	<0.00014	U	<0.00011	U	<0.00050	U	0.0062	J
MW-11	01/10/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-11	05/31/07	<0.00034	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00037	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00023	U;UJ, ICAL, I	<0.00050	U;UJ, ICAL, I
MW-11	07/12/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-11	10/10/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-11-0109	01/07/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-11-0408	04/25/08	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-11-0708	07/01/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-11-0109	01/05/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-11-0609	06/10/09	<0.00037	U	<0.00017	U	<0.00040	U	<0.00018	U	<0.00025	U	<0.00054	U
MW-11-0710	07/26/10	<0.00010	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.000099	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-11-0211	02/25/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-11-0711	07/13/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-11-1211	12/13/11	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-11-0412	04/25/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	<0.00020	U
MW-11-0113	01/22/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-10-0713	07/03/13	<0.00019	U	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00023	U
MW-11-0114	01/17/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-11-0714	07/02/14	<0.00018	U	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00022	U
MW-11-0115	01/07/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-11-0116	01/05/16	<0.00017	U	0.0003	J	0.0002	J	<0.00010	U	<0.00012	U	0.00050	J
MW-11-1216	12/20/16	<0.00022	U	<0.00014	U	<0.00027	U	<0.00013	U	<0.000074	U	<0.00027	U
MW-11-0617	06/07/17	<0.00011	U	<0.000071	U	<0.00014	U	<0.000066	U	<0.000038	U	<0.00014	U

Sample ID	Chemical CAS No. Tier 1 PCL	Aroclor 1232 11141-16-5 --		Aroclor 1242 53469-21-9 --		Aroclor 1248 12672-29-6 --		Aroclor 1254 11097-69-1 --		Aroclor 1260 11096-82-5 --		Total PCBs 1336-36-3 0.0005	
	Date	Val	Qual	Val	Qual	Val	Qual	Val	Qual	Val	Qual	Val	Qual
MW-17	06/13/05	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U
MW-17	01/25/06	<0.00012	U	<0.00015	U	<0.00014	U	<0.00011	U	<0.00050	U	<0.00050	U
MW-17	01/10/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-17	06/20/07	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00051	U;UJL-SUR
MW-17	07/12/07	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00051	U;UJL-SUR
MW-17	10/11/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-17-0108	01/07/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-17-0408	04/25/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-17-0708	07/01/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-17-0109	01/08/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-17-0509	05/11/09	<0.00037	U	<0.00017	U	<0.00040	U	<0.00018	U	<0.00025	U	<0.00054	U
MW-17-0710	07/20/10	<0.00011	U	<0.00012	U	<0.00015	U	<0.00011	U	<0.00012	U	<0.00022	U
MW-17-0211	02/25/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000592	U	<0.000168	U	<0.0000593	U
MW-17-0711	07/13/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000592	U	<0.000168	U	<0.0000593	U
MW-17-1211	12/14/11	<0.00011	U	<0.00011	U	<0.00015	U	<0.00011	U	<0.00011	U	<0.00021	U
MW-17-0412	04/26/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	<0.00020	U
MW-17-0113	01/22/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00031	U
MW-17-0713	07/02/13	<0.00044	J;U-RB	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00044	J;U-RB
MW-17-0114	01/17/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-17-0714	07/01/14	0.00042	J	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	0.00042	J
MW-17-0115	01/07/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-17-0116	01/06/16	<0.00018	U	0.00022	J	<0.00011	U	<0.00011	U	<0.00013	U	0.00022	J
MW-17-1216	12/20/16	<0.00022	U	<0.00014	U	<0.00027	U	<0.00013	U	<0.000074	U	<0.00027	U
MW-17-0617	06/07/17	<0.00011	U	<0.000071	U	<0.00014	U	<0.000055	U	<0.000039	U	<0.00014	U
MW-22	01/13/05	0.0011	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	0.0011	
MW-22	01/26/06	<0.00012	U	0.0013	J	<0.00014	U	<0.00011	U	<0.00050	U	0.0013	J
MW-22	01/10/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-22	06/20/07	<0.00035	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00038	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00023	U;UJ, ICAL, I	<0.00051	U;UJ, ICAL, I
MW-22	07/12/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-22	10/08/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-22-0108	01/08/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-22-0408	04/25/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-22-0708	07/01/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-22-0109	01/08/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-22-0509	05/11/09	<0.00036	U	<0.00017	U	<0.00039	U	<0.00018	U	<0.00024	U	<0.00053	U
MW-22-0710	07/20/10	<0.00011	U;UJL-SUR	<.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-22-0211	02/25/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000592	U	<0.000168	U	<0.0000593	U
MW-22-0711	07/13/11	<0.0000593	U	<0.0000751	U	<0.0000988	U	<0.0000592	U	<0.000168	U	<0.0000593	U
MW-22-1211	12/14/11	0.00053	J	<0.00011	U	<0.00015	U	<0.00011	U	<0.00012	U	0.00053	J
MW-22-0412	04/26/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	<0.00020	
MW-22-0113	01/23/13	0.00030	J	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.0003	J
MW-22-0713	07/02/13	<0.00019	U	<0.00014	U	<0.00011	U	<0.00011	U	<0.00014	U	<0.00024	U
MW-22-0114	01/16/14	0.00044	J	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.00044	J
MW-22-0714	07/01/14	0.00060		<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	0.00060	
MW-22-0115	01/06/15	0.0012		<0.00012	U	<0.00010	U	<0.00010	U	<0.0012	U	0.0012	
MW-22-0116	01/06/16	<0.00018	U	0.00047	J	0.00025	J	<0.00010	U	<0.00013	U	0.00072	J
MW-22-1216	12/20/16	<0.00022	U	<0.00014	U	<0.00027	U	<0.00013	U	<0.000074	U	<0.00027	U
MW-22-0617	06/07/17	0.00068		<0.000070	U	<0.00014	U	<0.000055	U	<0.000039	U	0.00068	
MW-23	06/14/05	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U
MW-23	01/26/06	<0.00012	U	0.0068		<0.00014	U	<0.00011	U	<0.00050	U	0.0068	J
MW-23	01/25/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-23	06/20/07	<0.00034	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00037	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00023	U;UJ, ICAL, I	<0.00051	U;UJ, ICAL, I
MW-23	07/13/07	<0.00068	U	<0.00032	U	<0.00074	U	<0.00034	U	<0.00046	U	<0.0010	U
MW-23	10/09/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-23-0108	01/07/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-23-0408	04/25/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-23-0708	07/02/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-23-0109	01/08/09	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-23-0509	05/10/09	<0.00035	U	<0.00016	U	<0.00038	U	<0.00017	U	<0.00023	U	<0.00051	U
MW-23-0710	07/20/10	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00015	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-23-0211	02/24/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000592	U	<0.000168	U	<0.0000593	U
MW-23-0711	07/13/11	<0.0000593	U	<0.0000751	U	<0.0000988	U	<0.0000592	U	<0.000168	U	0.0000593	U
MW-23-1211	12/14/11	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-23-0412	04/25/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	<0.00020	U
MW-23-0113	01/23/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00031	U
MW-23-0713	07/02/13	<0.00018	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.00033	U;UJL-SUR
MW-23-0114	01/17/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.00067	
MW-23-0714	07/07/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.0001	U	<0.00012	U	0.00036	J
MW-23-0115	01/07/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-23-0116	01/07/16	<0.00017	U	0.00076		0.00027	J	<0.00010	U	<0.00012	U	0.00326	J
MW-23-1216	12/20/16	0.001	JL-SUR	<0.00014	U;UJL-SUR	<0.00027	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.000074	U;UJL-SUR	0.001	
MW-23-0617	06/06/17	<0.00011	U	<0.000070	U	<0.00014	U	<0.000055	U	<0.000039	U	<0.00014	U

Sample ID	Chemical CAS No. Tier 1 PCL	Aroclor 1232 11141-16-5 --		Aroclor 1242 53469-21-9 --		Aroclor 1248 12672-29-6 --		Aroclor 1254 11097-69-1 --		Aroclor 1260 11096-82-5 --		Total PCBs 1336-36-3 0.0005	
	Date	Val	Qual	Val	Qual	Val	Qual	Val	Qual	Val	Qual	Val	Qual
MW-24	01/13/05	0.00066		<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	0.00066	
MW-24	01/26/05	<0.00012	U	0.00083	J	<0.00014	U	<0.00011	U	<0.00050	U	0.00083	J
MW-24	01/26/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-24	05/31/07	<0.00034	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00037	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00023	U;UJ, ICAL, I	<0.00050	U;UJ, ICAL, I
MW-24	07/12/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017		<0.00023	U	<0.00050	U
MW-24	10/05/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017		<0.00023	U	<0.00050	U
MW-24-0109	01/16/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-24-0408	04/29/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-24-0709	07/02/08	0.0011		<0.00016	U	<0.00037	U	<0.00017		<0.00023	U	0.0011	
MW-24-0109	01/26/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017		<0.00023	U	<0.00050	U
MW-24-0609	06/10/09	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00040	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00025	U;UJL-SUR	<0.00054	U;UJL-SUR
MW-24-0710	07/26/10	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-24-0211	02/24/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-24-0711	07/13/11	<0.0000593	U	0.00549		<0.0000988	U	<0.0000692	U	<0.000168	U	0.00549	
MW-24-1211	12/14/11	<0.00011	U	<0.00011	U	<0.00014	U	<0.00010	U	<0.00011	U	<0.00021	U
MW-24-0412	04/26/12	0.0135		<0.00011	U	<0.00014	U	<0.00010	U	<0.00011	U	0.0135	
MW-24-0113	01/23/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00020	U
MW-24-0713	07/02/13	0.0076		<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	0.0076	
MW-24-0114	01/07/14	0.034		<0.00013	U	<0.00010	U	<0.00010	U	<0.00012	U	0.034	
MW-24-0714	07/03/14	14.3		<0.33	U;UJ-SDL	<0.33	U;UJ-SDL	<0.33	U;UJ-SDL	<0.39	U;UJ-SDL	14.3	
MW-24-0115	01/07/15	0.017		<0.0012	U;UJ-SDL	<0.0010	U;UJ-SDL	<0.0010	U;UJ-SDL	<0.0012	U;UJ-SDL	0.017	
MW-24-0116	01/07/16	<0.0017	U;UJ-SDL	0.0318		0.0086		<0.0010	U;UJ-SDL	<0.0012	U;UJ-SDL	0.0404	
MW-24-1216	12/20/16	0.00061		<0.00014	U	<0.00037	U	<0.00013	U	<0.000075	U	0.00081	
MW-24-0617	06/07/17	<0.00010	U	<0.000067	U	<0.00013	U	<0.000062	U	<0.000036	U	<0.00013	U
MW-25	01/26/05	<0.00012	U	0.0032	J	<0.00014	U	<0.00011	U	<0.00050	U	0.0032	J
MW-25	01/26/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-25	05/30/07	<0.00034	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00037	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00023	U;UJ, ICAL, I	<0.00050	U;UJ, ICAL, I
MW-25	07/13/07	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-25	10/09/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U
MW-25-0108	01/07/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-25-0408	04/29/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-25-0708	07/02/08	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-25-0109	01/26/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017		<0.00023	U	<0.00050	U
MW-25-0609	06/10/09	<0.00011	U	<0.00011	U	<0.00014	U	<0.00010	U	<0.00011	U	<0.00021	U
MW-25-0710	07/26/10	<0.00010	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.000098	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00020	U;UJL-SUR
MW-25-0211	02/24/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-25-0711	07/13/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-25-1211	12/14/11	0.00031	J	<0.00011	U	<0.00015	U	<0.00011	U	<0.00011	U	0.00031	J
MW-25-0412	04/26/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000098	U	<0.00011	U	<0.00020	U
MW-25-0113	01/23/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00020	U
MW-25-0713	07/02/13	<0.00037	J;U-RB	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00037	J;U-RB
MW-25-0114	01/16/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-25-0714	07/02/14	<0.00053	J;U-RB	<0.00014	U	<0.00011	U	<0.00011	U	<0.00014	U	<0.00053	J;U-RB
MW-25-0115	01/07/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-25-0116	01/06/16	<0.00016	U	0.00065		0.00051	J	<0.00011	U	<0.00013	U	0.00116	J
MW-25-1216	12/21/16	0.0025		<0.00014	U	<0.00037	U	<0.00013	U	<0.000079	U	0.0026	
MW-25-0617	06/07/17	<0.00011	U	<0.000068	U	<0.00013	U	<0.000063	U	<0.000036	U	<0.00013	U
MW-26	01/13/05	0.0073	U	<0.0025	U	<0.0025	U	<0.0025	U	<0.0025	U	0.043	
MW-26	01/26/05	<0.00012	U	0.0077	J	<0.00014	U	<0.00011	U	<0.00050	U	0.0077	J
MW-26	01/11/07	<0.00012	U	<0.00017	U	<0.00034	U	<0.00010	U	<0.00013	U	<0.00034	U
MW-26	05/31/07	<0.00034	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00037	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00023	U;UJ, ICAL, I	<0.00050	U;UJ, ICAL, I
MW-26	07/12/07	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	0.168	JL-SUR
MW-26	10/05/07	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-26-0108	01/08/08	0.0111	JL-SUR	<0.00060	U;UJL-SUR	<0.0019	U;UJL-SUR	<0.00085	U;UJL-SUR	<0.0012	U;UJL-SUR	0.0478	JL-SUR,FD
MW-26-0408	04/29/08	<0.00034	UJL-SUR,FD	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	<0.00050	U;UJL-SUR
MW-26-0708	07/02/08	0.015	JL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	0.0618	JL-SUR,FD
MW-26-0109	01/07/09	<0.00034	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	0.077	JL-SUR
MW-26-0609	06/10/09	<0.00011	U	<0.00011	U	<0.00014	U	<0.00010	U	<0.00011	U	0.0288	
MW-26-0710	07/26/10	<0.00011	U;UJL-SUR	<0.00012	U;UJL-SUR	<0.00015	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00012	U;UJL-SUR	0.0037	JL-SUR
MW-26-0211	02/24/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000692	U	<0.000168	U	<0.0000593	U
MW-26-0711	07/13/11	<0.0000593	U	0.00537	JH-MS	<0.0000988	U	<0.0000692	U	<0.000168	U	0.00537	JH-MS
MW-26-1211	12/13/11	<0.00011	U	<0.00012	U	<0.00015	U	<0.00011	U	<0.00012	U	0.0038	JH-SUR, MS
MW-26-0412	04/26/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000098	U	<0.00011	U	<0.00020	U
MW-26-0113	01/23/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-26-0713	07/02/13	0.0075	JL-SUR	<0.00013	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00013	U;UJL-SUR	0.0075	JL-SUR
MW-26-0114	01/17/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-26-0714	07/02/14	0.0063		<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	0.0063	
MW-26-0115	01/07/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-26-0116	01/05/16	<0.00017	U	0.0032		<0.00010	U;UJ-FD	<0.00010	U	<0.00012	U	0.0032	
MW-26-1216	12/20/16	0.0034		<0.00014	U	<0.00037	U	<0.00013	U	<0.000074	U	0.0034	
MW-26-0617	06/07/17	<0.00011	U	<0.000070	U	<0.00014	U	<0.000065	U	<0.000039	U	<0.00014	U

Sample ID	Chemical CAS No. Tier 1 PCL Date	Aroclor 1232 11141-16-5 — Val	Qual	Aroclor 1242 53469-21-9 — Val	Qual	Aroclor 1248 12672-29-6 — Val	Qual	Aroclor 1254 11097-69-1 — Val	Qual	Aroclor 1260 11096-82-5 — Val	Qual	Total PCBs 1336-36-3 0.0005 Val	Qual
MW-101-0710	07/27/10	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00015	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00012	U;UJL-SUR	<0.00023	U;UJL-SUR
MW-101-0211	02/26/11	<0.0000591	U;UJL-SUR	<0.0000788	U;UJL-SUR	<0.0000985	U;UJL-SUR	<0.000059	U;UJL-SUR	<0.000167	U;UJL-SUR	<0.0000591	U;UJL-SUR
MW-101-0711	07/14/11	<0.0000593	U;UJL-SUR	0.000329	J;JL-SUR	<0.0000988	U;UJL-SUR	<0.0000592	U;UJL-SUR	<0.000168	U;UJL-SUR	0.000329	JL-SUR
MW-101-1211	12/14/11	0.0018	JL-SUR	<0.00011	U;UJL-SUR	<0.00015	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	0.0018	JL-SUR
MW-101-0412	04/30/12	0.00056		<0.00010	U	<0.00014	U	<0.000056	U	<0.00011	U	0.00056	
MW-101-0113	01/25/13	<0.00017	U	<0.00013	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-101-0713	07/05/13	<0.00018	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.00022	U;UJL-SUR
MW-101-0114	01/16/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
Before July 2014 this well was thought be MW-101. However, gauging with a string and weight confirmed a total depth of 360 feet, indicating the well was actually MW-104. Data shown above this entry is for MW-104, and below this entry is for MW-101.													
MW-101-0714	07/01/14	0.263		<0.013	U;U-SDL	<0.011	U;U-SDL	<0.011	U;U-SDL	<0.013	U;U-SDL	0.263	
MW-101-0115	01/07/15	0.394		<0.0061	U;U-SDL	<0.0051	U;U-SDL	<0.0051	U;U-SDL	<0.0051	U;U-SDL	0.394	
MW-101-0116	01/07/16	<0.018	U;U-SDL	0.557		0.371		<0.011	U;U-SDL	<0.013	U;U-SDL	0.868	
MW-101-0116	12/20/16	1.91		<0.070	U;U-SDL	<0.14	U;U-SDL	<0.065	U;U-SDL	<0.038	U;U-SDL	1.91	
MW-101-0115	06/06/17	0.204		<0.0067	U;U-SDL	<0.013	U;U-SDL	<0.0052	U;U-SDL	<0.0036	U;U-SDL	0.204	
MW-102	01/17/06	0.178	U	<0.05	U	<0.05	U	<0.05	U	<0.05	U	0.178	
MW-102	01/26/06	<0.00012	U	0.22	J	<0.00014	U	<0.00011	U	<0.00050	U	0.22	J
MW-102	05/31/07	<0.00034	U;UJ, ICAL, I	<0.00016	U;UJ, ICAL, I	<0.00037	U;UJ, ICAL, I	<0.00017	U;UJ, ICAL, I	<0.00023	U;UJ, ICAL, I	<0.00051	U;UJ, ICAL, I
MW-102	10/10/07	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	<0.00050	U;UJ, ICAL, I
MW-102-0108	01/08/08	0.0297	JL-SUR	<0.0025	U;UJL-SUR	<0.0025	U;UJL-SUR	<0.0025	U;UJL-SUR	<0.0025	U;UJL-SUR	0.0661	
MW-102-0408	04/30/08	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017	U	<0.00023	U	0.0648	
MW-102-0708	07/02/08	0.0552	U	<0.00016	U;UJL-SUR	<0.00037	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00023	U;UJL-SUR	0.1216	
MW-102-0109	01/09/09	<0.00034	U	<0.00016	U	<0.00037	U	<0.00017		<0.00023	U	0.0331	
MW-102-0609	06/11/09	<0.00011	U	<0.00011	U	<0.00014	U	<0.00010		<0.00011	U	0.0046	
MW-102-0710	07/27/10	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00015	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00012	U;UJL-SUR	0.0161	JL-SUR,FD
MW-102-0211	02/26/11	0.102		<0.00168	U	<0.00197	U	<0.00138	U	<0.00335	U	0.102	
MW-102-0711	07/14/11	<0.000589	U	0.0695	JH-SUR	<0.00146	U	<0.00104	U	<0.000592	U	0.0695	JH-SUR
MW-102-1211	12/14/11	0.107	JH-FD	<0.00011	U	<0.00015	U	<0.00011	U	<0.00011	U	0.107	
MW-102-0412	04/27/12	0.717	JH-FD	<0.00010	U	<0.00014	U	<0.000056	U	<0.00011	U	0.717	JH-FD
MW-102-0113	01/24/13	1.19		<0.00012	U	<0.00016	U	<0.00010	U	<0.00012	U	1.19	
MW-102-0713	07/02/13	1.87	JH-FD	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	1.87	JH-FD
MW-102-0114	01/16/14	0.528		<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.528	
Before July 2014 this well was thought to be MW-102. However, gauging with a string and weight confirmed a total depth of 113 feet, indicating the well was actually MW-101. Data shown above this entry is for MW-101, and below this entry is for MW-102.													
MW-102-0714	07/07/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.0001	U	<0.00013	U	<0.00021	U
MW-102-0115	01/06/15	0.0226		<0.00061	U;U-SDL	<0.00051	U;U-SDL	<0.00051	U;U-SDL	<0.00051	U;U-SDL	0.0226	
MW-102-0116	01/06/16	<0.00016	U	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00022	U
MW-102-1216	12/15/16	<0.00022	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00027	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.000074	U;UJL-SUR	<0.00027	U;UJL-SUR
MW-102-1216	12/19/16	<0.00022	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00027	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.000074	U;UJL-SUR	<0.00027	U;UJL-SUR
MW-102-0617	06/06/17	<0.00011	U	<0.00067	U	<0.00013	U	<0.000062	U	<0.000036	U	<0.00013	U
MW-103-0710	07/27/10	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-103-0211	02/26/11	<0.0000591	U	<0.0000788	U	<0.0000985	U	<0.000059	U	<0.000167	U	<0.0000591	U
MW-103-0711	07/14/11	<0.0000593	U	<0.0000791	U	<0.0000988	U	<0.0000592	U	<0.000168	U	<0.0000593	U
MW-103-1211	12/14/11	<0.00011	U	<0.00013	U	<0.00014	U	<0.00010	U	<0.00011	U	<0.00021	U
MW-103-0412	04/30/12	0.00021	J	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	0.00021	
MW-103-0113	01/24/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-103-0713	07/05/13	<0.00035	J;U-RB	<0.00014	U	<0.00011	U	<0.00011	U	<0.00014	U	<0.00039	J;U-RB
This well was not sampled in January or July 2014 because a pump was installed in the well but not connected to power.													
MW-103-0115	01/08/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-103-0116	01/07/16	<0.00017	U;UJL-SUR	<0.00012	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00012	U;UJL-SUR	<0.00021	U
MW-103-1215	12/15/16	<0.00022	U;UJL-SUR	<0.00014	U;UJL-SUR	<0.00027	U;UJL-SUR	<0.00013	U;UJL-SUR	<0.000074	U;UJL-SUR	<0.00027	U;UJL-SUR
MW-103-0617	06/06/17	0.0049		<0.00021	U	<0.00041	U	<0.00019	U	<0.00011	U	0.0049	
MW-104-0609	06/11/09	<0.00036	U;UJL-SUR	<0.00018	U;UJL-SUR	<0.00041	U;UJL-SUR	<0.00019	U;UJL-SUR	<0.00026	U;UJL-SUR	<0.00056	U;UJL-SUR
MW-104-0710	07/27/10	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00048	U;UJL-SUR	<0.00010	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00021	U;UJL-SUR
MW-104-0211	02/26/11	<0.0000591	U;UJL-SUR	<0.0000788	U;UJL-SUR	<0.0000985	U;UJL-SUR	<0.000059	U;UJL-SUR	<0.000167	U;UJL-SUR	<0.0000591	U;UJL-SUR
MW-104-0711	07/14/11	<0.0000593	U	0.00137		<0.0000988	U	<0.0000592	U	<0.000168	U	0.0137	
MW-104-1211	12/14/11	0.00064		<0.00011	U	<0.00014	U	<0.00010	U	<0.00011	U	0.00064	
MW-104-0412	04/30/12	0.00033	U	<0.00010	U	<0.00014	U	<0.000056	U	<0.00011	U	0.00033	U
MW-104-0113	01/24/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
MW-104-0713	07/03/13	<0.00021	J;U-RB	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00022	U
MW-104-0114	01/16/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
Before July 2014 this well was thought to be MW-104. However, video inspection of the well confirmed a total depth of 298 feet, indicating the well was actually MW-102. Data shown above this entry is for MW-102, and below this entry is for MW-104.													
This well was not sampled in July 2014 because a pump was installed in the well but not connected to power.													

Sample ID	Chemical CAS No. Tier 1 PCL Date	Aroclor 1232 11141-16-5 -- Val	Qual	Aroclor 1242 53469-21-9 -- Val	Qual	Aroclor 1248 12672-29-6 -- Val	Qual	Aroclor 1254 11097-69-1 -- Val	Qual	Aroclor 1260 11096-82-5 -- Val	Qual	Total PCBs 1336-36-3 0.0005 Val	Qual
RW-1	01/17/05	0.116		<0.05	U	<0.05	U	<0.05	U	<0.05	U	0.116	
RW-1	01/24/05	<0.00012	U	0.28	J	<0.00014	U	<0.00011	U	<0.00050	U	0.28	J
RW-1	02/01/06	NA		NA		NA		NA		NA		NA	
RW-2	01/17/05	0.132		<0.05	U	<0.05	U	<0.05	U	<0.05	U	0.132	
RW-2	01/24/05	<0.00012	U	1.3	J	<0.00014	U	<0.00011	U	<0.00050	U	1.3	J
RW-3	01/16/05	0.33		<0.05		<0.05	U	<0.05	U	<0.05	U	0.33	
RW-3	01/24/05	<0.00012	U	0.49	J	<0.00014	U	<0.00011	U	<0.00050	U	0.49	J
RW-4	01/17/05	0.214		<0.05	U	<0.05	U	<0.05	U	<0.05	U	0.214	
RW-4	01/24/05	<0.00012	U	0.40	J	<0.00014	U	<0.00011	U	<0.00050	U	0.4	J
RW-5	01/16/05	0.378		<0.05	U	<0.05	U	<0.05	U	<0.05	U	0.378	
RW-5	01/25/05	<0.00012	U	0.86	J	<0.00014	U	<0.00011	U	<0.00050	U	0.86	J
RW-5	01/17/05	0.0847		<0.05	U	<0.05	U	<0.05	U	<0.05	U	0.0847	
RW-6	01/25/05	<0.00012	U	0.044	J	<0.00014	U	<0.00011	U	<0.00050	U	0.044	J
RW-7	01/16/05	0.127		<0.05	U	<0.05	U	<0.05	U	<0.05	U	0.127	
RW-7	01/25/05	<0.00012	U	0.14	J	<0.00014	U	<0.00011	U	<0.00050	U	0.14	J
RW-8	01/16/05	0.00092		<0.00050	U	<0.00050	U	<0.00050	U	<0.00050	U	0.00092	
RW-8	01/25/05	<0.00012	U	0.0068	J	<0.00014	U	<0.00011	U	<0.00050	U	0.0068	J
RW-9	01/16/05	0.0139		<0.0025	U	<0.0025	U	<0.0025	U	<0.0025	U	0.0139	
RW-9	01/25/05	<0.00012	U	0.005	J	<0.00014	U	<0.00011	U	<0.00050	U	0.005	J
RW-10	01/17/05	0.0112		<0.0010	U	<0.0010	U	<0.0010	U	<0.0010	U	0.0112	
RW-10	01/25/05	<0.00012	U	0.012	J	<0.00014	U	<0.00011	U	<0.00050	U	0.012	J
FB-01-0711	07/14/11	NA		NA		NA		NA		NA		NA	
FB-01-1211	12/14/11	NA		NA		NA		NA		NA		NA	
FB-01-0412	04/26/12	NA		NA		NA		NA		NA		NA	
WD-01-0211	02/24/11	<0.0000593	U	<0.0000751	U	<0.0000988	U	<0.0000692	U	<0.000169	U	<0.0000593	U
WD-01-0711	07/13/11	<0.0000593	U	0.00412		<0.0000988	U	<0.0000692	U	<0.000169	U	0.00412	
WD-01-1211	12/13/11	<0.00011	U	<0.00011	U	<0.00015	U	<0.00011	U	<0.00011	U	0.0037	JH-SUR
WD-01-0412	04/25/12	<0.00010	U	<0.00010	U	<0.00014	U	<0.000098	U	<0.00011	U	<0.00020	U
WD-01-0113	01/23/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
WD-01-0713	07/02/13	2.97	JHFD	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	2.97	JHFD
WD-01-0114	01/17/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
WD-01-0714	07/02/14	0.0067		<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	0.0067	
WD-01-0115	01/06/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
WD-01-0116	01/06/16	<0.00017	U	0.0037		0.003	JHFD	<0.00010	U	<0.00012	U	0.0067	
WD-01-1216	12/20/16	1.78		<0.078	U;U-SDL	<0.14	U;U-SDL	<0.055	U;U-SDL	<0.038	U;U-SDL	1.78	
WD-01-0617	06/07/17	<0.00011	U	<0.000070	U	<0.00014	U	<0.000055	U	<0.000038	U	<0.00014	U
WD-02-0211	02/25/11	0.10		<0.00188	U	<0.00197	U	<0.00138	U	<0.00335	U	0.10	
WD-02-0711	07/14/11	<0.0000691	U	0.0716		<0.00149	U	<0.00104	U	<0.000252	U	0.0716	
WD-02-1211	12/14/11	0.16	JHFD	<0.00011	U	<0.00015	U	<0.00011	U	<0.00012	U	0.16	JHFD
WD-02-0412	04/27/12	0.603	JHFD	<0.00010	U	<0.00014	U	<0.000099	U	<0.00011	U	0.603	JHFD
WD-02-0113	01/22/13	0.557		<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.557	
WD-02-0713	07/02/13	0.0069	JL-SUR	<0.00014	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00011	U;UJL-SUR	<0.00014	U;UJL-SUR	0.0069	JL-SUR
WD-02-0114	01/17/14	0.446		<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.446	
WD-02-0714	07/07/14	<0.00017	U	<0.00012	U	<0.00010	U	<0.0001	U	<0.00012	U	<0.00024	U
WD-02-0115	01/06/15	0.0245		<0.00061	U;U-SDL	<0.00051	U;U-SDL	<0.00051	U;U-SDL	<0.00061	U;U-SDL	0.0245	
WD-02-0116	01/06/16	<0.00018	U	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	<0.00022	U
WD-02-1216	12/20/16	0.00066		<0.00014	U	<0.00027	U	<0.00013	U	<0.000074	U	0.00066	
WD-02-0617	06/07/17	<0.00012	U	<0.000074	U	<0.00015	U	<0.000058	U	<0.000040	U	<0.00015	U
WE-01-0211	02/26/11	<0.0000691	U;UJL-SUR	<0.0000768	U;UJL-SUR	<0.0000988	U;UJL-SUR	<0.0000692	U;UJL-SUR	<0.000167	U;UJL-SUR	<0.0000691	U;UJL-SUR
WE-01-0711	07/14/11	<0.0000593	U	<0.0000751	U	<0.0000988	U	<0.0000692	U	<0.000169	U	<0.0000593	U
WE-01-1211	12/14/11	<0.00017	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00022	U;UJL-SUR	<0.00016	U;UJL-SUR	<0.00017	U;UJL-SUR	<0.00033	U;UJL-SUR
WE-01-0412	04/30/12	<0.00010	U	<0.00011	U	<0.00014	U	<0.00010	U	<0.00011	U	<0.00020	U
WE-01-0113	01/23/13	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
WE-01-0713	07/03/13	0.00034	J	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	0.00034	J
WE-01-0114	01/17/14	0.00029	J	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	0.00029	J
WE-01-0714	07/07/14	<0.00018	U	<0.00013	U	<0.00010	U	<0.0001	U	<0.00013	U	<0.00022	U
WE-01-0115	01/06/15	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
WE-01-0116	01/07/16	<0.00017	U	<0.00012	U	<0.00010	U	<0.00010	U	<0.00012	U	<0.00021	U
WE-01-1216	12/20/16	<0.00023	U	<0.00014	U	<0.00027	U	<0.00013	U	<0.000074	U	<0.00027	U
WE-01-1216	12/20/16	<0.00023	U	<0.00014	U	<0.00027	U	<0.00013	U	<0.000074	U	<0.00027	U
WE-01-0617	06/06/17	<0.00012	U	<0.000076	U	<0.00015	U	<0.000070	U	<0.000041	U	<0.00015	U
WE-03-0714	07/03/14	<0.00015	U	<0.00013	U	<0.00011	U	<0.00011	U	<0.00013	U	0.00041	J
WE-03-0714	07/07/14	<0.00017	U	<0.00012	U	<0.0001	U	<0.0001	U	<0.00012	U	<0.00034	U
WE-03-0714	07/07/14	<0.00017	U	<0.00012	U	<0.0001	U	<0.0001	U	<0.00012	U	<0.00034	U
WE-03-0714	07/07/14	<0.00017	U	<0.00012	U	<0.0001	U	<0.0001	U	<0.00012	U	<0.00034	U

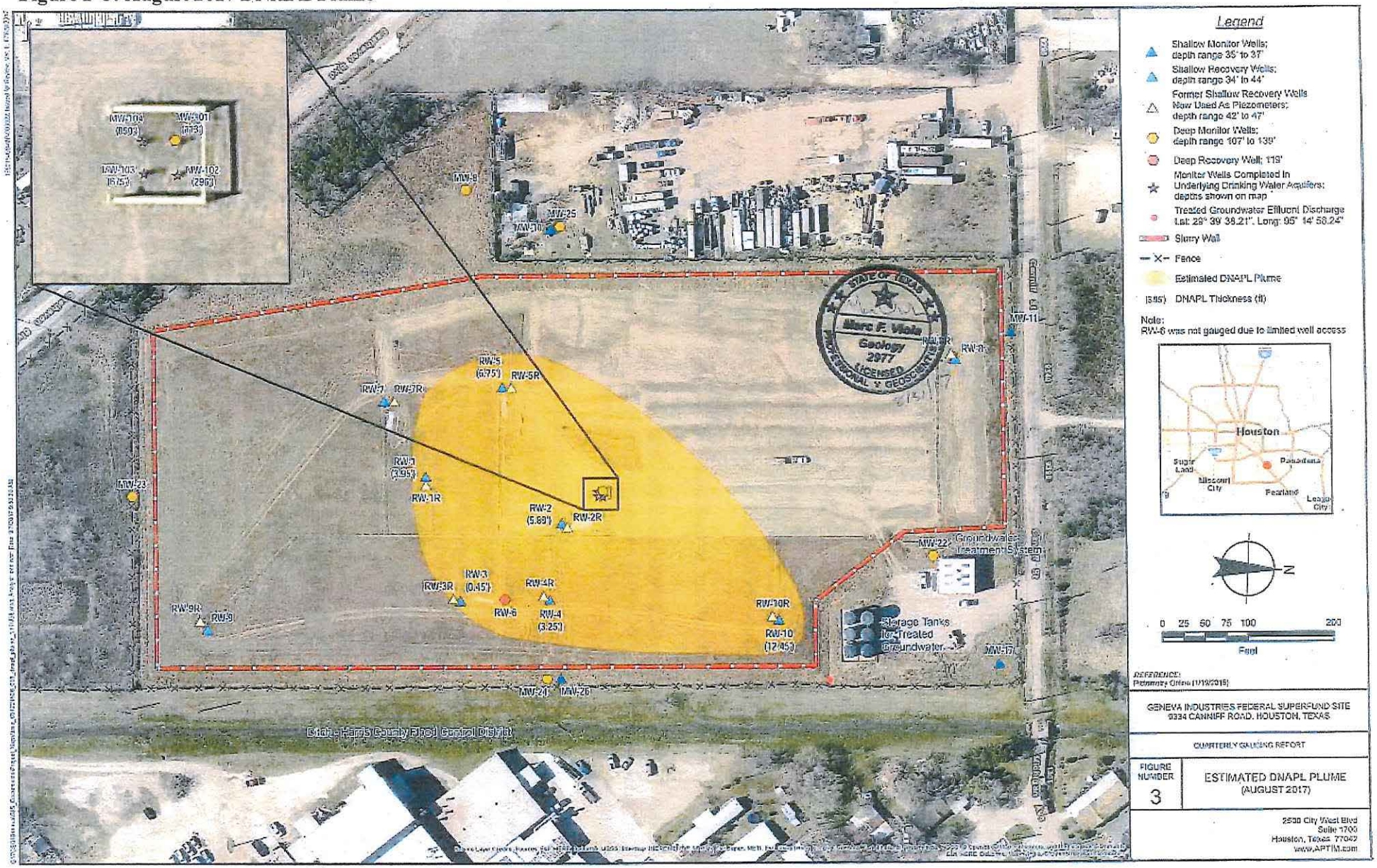
Sample ID	Chemical CAS No. Tier 1 PCL Date	Aroclor 1232 11141-16-5 -- Val	Qual	Aroclor 1242 53469-21-9 -- Val	Qual	Aroclor 1248 12672-29-6 -- Val	Qual	Aroclor 1254 11097-69-1 -- Val	Qual	Aroclor 1260 11096-82-5 -- Val	Qual	Total PCBs 1336-36-3 0.0005 Val	Qual
WT-01-0711	07/14/11	NA		NA		NA		NA		NA		NA	
WT-01-1211	12/12/11	NA		NA		NA		NA		NA		NA	
WT-01-0412	04/25/12	NA		NA		NA		NA		NA		NA	
WT-01-0113	01/23/13	NA		NA		NA		NA		NA		NA	
WT-01-0713	06/28/13	NA		NA		NA		NA		NA		NA	
WT-01-0114	01/16/14	NA		NA		NA		NA		NA		NA	
WT-01-0714	07/02/14	NA		NA		NA		NA		NA		NA	
WT-01-0115	01/07/15	NA		NA		NA		NA		NA		NA	
WT-01-1216	12/20/16	NA		NA		NA		NA		NA		NA	
WT-01-0617	06/06/17	NA		NA		NA		NA		NA		NA	

Notes:
"<" - Not detected: the analyte was analyzed for, but was not detected above the level of the associated value.
Protective Concentration Level (PCL) values taken from Texas Risk Reduction Program (TRRP) Tier 1 Table 3 - Residential Groundwater Ingestion ($^{GW}GW_{ing}$[3]) for 0.5-acre, effective June 29, 2012.
Bold, yellow-highlight indicates sample above TRRP Tier 1 Residential Groundwater PCL.

U - Not detected.
J - Result or detection limit is an estimated value
I - Result or detection limit bias was indeterminate
B - Analyte was detected in an associated blank sample
FD - Field Duplicate
H - Result or detection limit was biased high
I - Result or detection limit bias was indeterminate.
ICAL - Initial calibration result

L - Bias in sample result likely to be low
LCS - Laboratory control sample recovery evaluation criteria not met
MS - Matrix Spike
PR - Preservation requirement not met
RB - Rinsate Blank
SDL - Sample Detection Limit
SUR - Surrogate
NA - Not Analyzed

Figure F-3: August 2017 DNAPL Plume



APPENDIX G – INTERVIEW FORMS

Geneva Industries/Fuhrmann Energy Superfund Site — Five-Year Review Interview Form

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Treat Suomi **Affiliation:** Skeo
Subject Name: Midori Campbell **Affiliation:** TCEQ
Subject Contact Information: Midori.campbell@tceq.texas.gov, 512-239-2077
Time: 11:00 a.m. **Date:** 10/24/2017
Interview Location: TCEQ Office

Interview Format (circle one): In Person Phone Mail Other: Email

Interview Category: State Agency

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   TCEQ's overall impression of the Site is that more work will be necessary to ensure that the site is protective of human health and the environment. Currently, operations and maintenance (O&M) activities at the site are being performed routinely and are documented in monthly O&M Reports.

2. What is your assessment of the current performance of the remedy in place at the Site?

   The remedy for eliminating on-site exposure of the constituents of concern (COCs) in the capped soil and waste material appears to be performing as designed. The migration pathway for COCs in the soil is rendered incomplete by the engineered cap, and site security measures restrict unauthorized entry to the site.

   The slurry wall, in conjunction with pumping of groundwater the 30-foot sands, maintains an inward hydraulic gradient of the shallow groundwater bearing unit (GWBU). The naturally-occurring clay layer underlying the capped waste materials serves as a low-permeability barrier separating the 30-foot sands from the deeper 100-foot sands. The Waste Management Unit does not have an engineered liner system beneath capped waste materials. Beginning in March 2016, a different method of gauging the thickness of dense, non-aqueous phase liquid (DNAPL) was employed, revealing measurable thicknesses of DNAPL accumulation in several wells. The greatest thickness of DNAPL at 12+ feet was measured in RW-10, which is located adjacent to the northeast corner of the slurry wall. The volume of DNAPL in the contained materials beneath the cap is estimated to be greater than 600,000 gallons based on the DNAPL thicknesses measured in the recovery wells. TCEQ is concerned about the potential for DNAPL and its constituents to migrate vertically to the lower GWBUs, as well as to break through the slurry wall and migrate horizontally off-site.

   PCBs and vinyl chloride continue to be detected in the groundwater in the 100-foot sands beneath and adjacent to the site. Wells drilled through the cap, waste material, and contaminated soils into the 100-foot sands may be serving as conduits for vertical migration of COCs from the 30-foots sands. Pumping of deep well RW-6 was discontinued in 2016, as there was concern that DNAPL was being drawn down from the 30-foots sands through pumping of RW-6. Based on the detections of PCBs and vinyl chloride in the deeper water bearing unit, TCEQ believes that the groundwater remedy is not performing as designed and is not protective of groundwater.

3. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?

On March 14, 2016, TCEQ received an inquiry from Ayan Zeng, the project assistant in the Environmental Public Health Department of Harris County Public Health and Environmental Service. As part of their review on the Health Impact Assessment of the Health Planning in Pasadena, Ms. Zeng requested information relating to the current concentration of PCBs in the soil and groundwater at Geneva. Ms. Zeng also inquired about the minimum safe radius for surrounding residents. TCEQ and EPA provided Ms. Zeng with an electronic copy of the 2015 Final Annual O&M Summary Report which summarized concentrations of vinyl chloride and PCBs in the groundwater and explained that the extent of off-site concentrations of PCBs and vinyl chloride exceeding levels protective of human health have not been delineated.

4. Has your office conducted any site-related activities or communications in the past five years? If so, please describe the purpose and results of these activities.

TCEQ conducts routine groundwater monitoring at the site. TCEQ performs the operations and maintenance of the 3o-foot sands groundwater recovery and treatment system. O&M of the system consists of activities associated with the pumping contaminated water from the 30-foot sands beneath the containment cap, treating and testing the recovered groundwater, and discharging the treated effluent into the adjacent Harris County drainage ditch. TCEQ also maintains the landfill cover and site security. In March 2016, the presence of DNAPL was observed in several wells, and TCEQ added DNAPL gauging to its groundwater monitoring activities. Upgrades and repairs to the groundwater treatment system since the Fourth Five Year Review include the following:

- 2014: Retrofits to the treatment system included repairs and/or replacement of leaking pipelines, inoperable pumps, check valves, and electrical components, as well as cleaning of the drain in the treatment building.
- 2015: Extensive retrofits were performed to enable the process treatment system (PTS) to process and store greater volumes of groundwater. Two 30,000 gallon clean water storage tanks were replaced with six 31,757 gallon storage tanks. Other retrofits included repair and/or replacement of recovery well pumps, piping, the PTS building entrance door, lights and ventilation fans, front gate and fencing, switches, a transfer pump, and spent GAC from one of the GAC tanks.
- 2016: A telemetry system was installed inside the PTS building to send automated messages for unscheduled system shutdowns. Maintenance of the recovery wells was conducted to gauge any silt accumulation inside the wells. Repairs were made to tanks, pipes, and fittings.
- 2017: In January, faulty check valves and float switches caused water to overflow inside the PTS building, flooding the floor to a depth of six inches. All of the standing water was contained, and no release of water occurred. The standing water was pumped to holding tanks and subsequently treated and discharged. Many repairs were conducted on the system, including replacement of check valves, float switches, and a transfer pump, and repairs to the settling tank and leaks in pipes. Additionally, repairs were made to the Oil/Water Separator (OWS), which included replacement of the media filters and skimmer pipe.

5. Are you aware of any changes to state laws that might affect the protectiveness of the Site's remedy?

The criteria for assessing the protectiveness of the remedy have been affected by changes in laboratory detection limits and changes to state laws. During the 1984 Remedial Investigation (RI), concentrations of PCBs were measured at below laboratory detection limits in all but one groundwater sample. Hence, PCBs were not selected as a site groundwater COC. Since the RI, PCBs have been detected in groundwater samples at concentrations lower than the 1984 detection limits. Similarly, vinyl chloride, which is a daughter product of trichloroethylene (TCE), was not listed as a site groundwater COC. Like PCBs, vinyl chloride has been detected in the groundwater since the RI at concentrations exceeding levels protective of human health. While neither PCB or vinyl chloride are recognized in the Record of Decision (ROD) as site COCs for groundwater, continued analysis for these constituents are necessary to evaluate the protectiveness of the groundwater remedy.

Since the issuance of the ROD, levels of PCBs which are protective of human health have become more stringent. Protective Concentration Limits (PCLs) under the current TCEQ Texas Risk Reduction Program (TRRP) are lower than the limits which were previously established. The original action level for removal of PCB-contaminated soil was 100 mg/Kg or greater for on-site soil and 50 mg/Kg or greater for off-site soil. The current TotSoilComb and GWSoiling PCLs for PCBs are 1.1 mg/Kg and 11 mg/Kg for residential exposure and 7.7 mg/Kg and 11 mg/Kg for commercial exposure, respectively. Given these PCLs, TCEQ believes that, soils with PCB concentrations exceeding human health protective levels may still be present at the site. Because of the changes resulting from TRRP and laboratory detection limits, contamination in soils and in groundwater have not been fully delineated at the site. Based on the current groundwater sampling data and DNAPL measurements, TCEQ believes that the soil and groundwater remedies may not be protective of human health or the environment.

6. Are you comfortable with the status of the institutional controls at the Site? If not, what are the associated outstanding issues?

   Deed notices were filed with the Harris County clerk's office in 2015 for each affected property at the site. The institutional controls limit land use to commercial/industrial and provide notification of the permanent physical controls on soil and groundwater to prevent exposure to contaminated soil and groundwater, as appropriate to each parcel. The institutional controls require the property owner to notify and get approval from the TCEQ if the owner wishes to change the property's land use or modify the controls on the property. The TCEQ attempted to obtain restrictive covenants for all properties and owners; however, for properties whose owners were unresponsive or unwilling to sign restrictive covenants, the TCEQ place deed notices as the institutional control, as allowed under TRRP.

7. Are you aware of any changes in projected land use(s) at the Site?

   I am unaware of any changes in projected land use at the Site.

8. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

   TCEQ will continue to operate and monitor the groundwater treatment system to maintain the inward hydraulic gradient, maintain the cap to prevent human exposure to contaminated materials, and keep the site secure to restrict unauthorized access to the site. However, the current remedy of extracting and treating contaminated groundwater from the 30-foot sands has not demonstrated protectiveness of groundwater in the 100-foot sands. To fully address protectiveness of the remedy, TCEQ recommends that EPA:

   - characterize the DNAPL observed in the 30-foot sands;
   - conduct an investigation to delineate the horizontal and vertical extent of groundwater contamination;
   - conduct an investigation to delineate the horizontal and vertical extent of soil contamination;
   - inspect all of the wells which were installed through the contaminated materials into the deeper GWBUs to determine whether they are serving as conduits for vertical migration of DNAPL and constituents;
   - plug and abandon deep wells;
   - conduct another feasibility study if warranted based on the findings of the DNAPL characterization and groundwater/soil investigation;
   - select a new remedy;
   - amend the ROD as appropriate; and
   - implement the alternate remedy.

9. Do you give permission for the following to be included in the Five-Year Review Report and appendices, which becomes a public document? Please initial below.

a. Your name? Yes ___X___ No _____
b. Your affiliation? Yes ___X___ No _____
c. Your responses? Yes ___X___ No _____

Geneva Industries/Fuhrmann Energy Superfund Site **Five-Year Review Interview Form**

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Treat Suomi **Affiliation:** Skeo
Subject Name: Marc Viola **Affiliation:** Aptim
Subject Contact Information: Marc.viola@aptim.com, 281-531-3141
Time: 11:00 a.m. **Date:** 12/28/2017
Interview Location: Aptim Office

Interview Format (circle one): In Person Phone Mail Other: Email

Interview Category: O&M Contractor

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   Aptim's overall impression is that current O&M of the PTS is effective at treating the pumped groundwater to below the discharge standards and that the pumping of the shallow groundwater continues to maintain an inward gradient towards the cap.

2. What is your assessment of the current performance of the remedy in place at the Site?

   The clay cap has prevented surface runoff of COC's and any potential exposure at the surface. The security measures in place include: barbed wire topped chain linked perimeter fence, signage, and locked PTS building have been effective at keeping the general public from entering the facility. The groundwater recovery pumps are capable and continue to keep an inward hydraulic gradient within the slurry wall. PCB's and vinyl chloride are detected above their PCL's from the 100ft sands, thus the current remedy does not appear to be effective at controlling the vertical migration of PCBs. The recently measured thickness of DNAPL's across the site appear to support that vertical migration to the underlying aquifer has taken place.

3. What are the findings from the monitoring data? What are the key trends in contaminant levels that are being documented over time at the Site?

   Over the last two years, concentrations of PCB's and Vinyl Chloride (VC) above their respective PCL's have been detected from both shallow and deep wells located outside of the slurry wall and also from the deep wells inside the slurry wall. Since 2005, the overall trends show concentrations of PCB's and VC decreasing in the shallow wells and concentrations of PCBs increasing in the deep wells.

4. Is there a continuous on-site O&M presence? If so, please describe staff responsibilities and activities. Alternatively, please describe staff responsibilities and the frequency of site inspections and activities if there is not a continuous on-site O&M presence.

   Currently site visits are scheduled every two weeks and more frequent if repairs made to the PTS require additional monitoring. Site visits typically include sampling the effluent and treated water in between processing tanks, inspection and minor repairs of the PTS, cap inspection and documentation. A basic telemetry system was installed at the site in 2016 to automatically notify staff when an unscheduled shut-down of the system has occurred.

5. Have there been any significant changes in site O&M requirements, maintenance schedules or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy? Please describe changes and impacts.

   O&M time has increased over the last five years due to the age of the PTS. Storage tanks have been replaced or repaired, pipes (above and below grade) have been replaced (or need to be replaced), limited telemetry has been installed and the procedure for measuring DNAPL's has been changed. All of the changes and repairs that have been made do not adversely affect the remedy.

6. Have there been unexpected O&M difficulties or costs at the Site since start-up or in the last five years? If so, please provide details.

   Numerous repairs and upgrades have been performed including the installation of six 32,000 gallon storage tanks, GAC replacement, transfer pumps installed, cleaning and repair of the settling tank, installation of limited telemetry, replacement of the front gate, installation of a rear access gate, and the repair of numerous valves, fittings and pipes. The interior of the PTS was flooded with groundwater in January 2017, requiring extensive O&M activates to repair electrical components. All of the floodwater was contained inside the building and there was no release to the environment. All of the floodwater was recovered, treated, and discharged.

7. Have there been opportunities to optimize O&M activities or sampling efforts? Please describe changes and any resulting or desired cost savings or improved efficiencies.

   A limited telemetry system was installed in 2016 to inform the operator (via cell phone alert) if the system shut down, thus enabling the PTS to be restarted within a short period of time (usually one day). Silt was removed from the settling tank and OWS to help prolong the life of the filters thus resulting in fewer filter changes.

8. Do you have any comments, suggestions or recommendations regarding O&M activities and schedules at the Site?

   Replace the PTS control panel with an upgraded panel that would allow the adjustment of individual recovery pumps and the monitoring of critical functions to keep the system operational for maintaining the hydraulic control of the groundwater in the 30-foot sands inside of the slurry wall.

9. Do you give permission for the following to be included in the Five-Year Review Report and appendices, which becomes a public document? Please initial below.

   a. Your name? Yes ___X___ No _____
   b. Your affiliation? Yes ___X___ No _____
   c. Your responses? Yes ___X___ No _____

Geneva Industries/Fuhrmann Energy Superfund Site **Five-Year Review Interview Form**

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Brice Robertson **Affiliation:** Skeo
Subject Name: Nearby Business 1 **Affiliation:** N/A
Subject Contact Information: N/A
Time: 11:30 a.m. **Date:** 10/03/2017
Interview Location: Business facility

Interview Format (circle one): (In Person) Phone Mail Other:

Interview Category: Residents

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

   No.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   It's pretty nice.

3. What have been the effects of the Site on the surrounding community, if any?

   None, been here five years, too.

4. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?

   No.

5. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

   No. A brochure or paper would be fine.

6. Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?

   No. We collect rainwater.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

   No.

Geneva Industries/Fuhrmann Energy Superfund Site **Five-Year Review Interview Form**

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Brice Robertson **Affiliation:** Skeo
Subject Name: Nearby Business 2 **Affiliation:** N/A
Subject Contact Information: N/A
Time: 11:45 a.m. **Date:** 10/02/2017
Interview Location: Business facility

Interview Format (circle one): (In Person) Phone Mail Other:

Interview Category: Residents

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

   No.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   It's ok.

3. What have been the effects of the Site on the surrounding community, if any?

   None.

4. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?

   No.

5. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

   No. A fact sheet is fine.

6. Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?

   No. City water.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

   No.

Geneva Industries/Fuhrmann Energy Superfund Site **Five-Year Review Interview Form**

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Brice Robertson **Affiliation:** Skeo
Subject Name: Nearby Church **Affiliation:** N/A
Subject Contact Information: N/A
Time: 12:30 p.m. **Date:** 10/02/2017
Interview Location: Church

Interview Format (circle one): (In Person) Phone Mail Other:

Interview Category: Residents

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

   No.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   I know there was construction, but no real knowledge.

3. What have been the effects of this Site on the surrounding community, if any?

   None.

4. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?

   No.

5. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

   No. A fact sheet.

6. Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?

   No, we use city water.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

   No.

Geneva Industries/Fuhrmann Energy Superfund Site **Five-Year Review Interview Form**

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Brice Robertson **Affiliation:** Skeo
Subject Name: Resident 1 **Affiliation:** N/A
Subject Contact Information: N/A
Time: 12:15 p.m. **Date:** 10/02/2017
Interview Location: Resident's front porch

Interview Format (circle one): (In Person) Phone Mail Other:

Interview Category: Residents

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

   No.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   Nothing.

3. What have been the effects of the Site on the surrounding community, if any?

   Nothing.

4. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?

   No.

5. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

   No. Email or knock on our door.

6. Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?

   No, we're on city water.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

   No.

Geneva Industries/Fuhrmann Energy Superfund Site **Five-Year Review Interview Form**

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Brice Robertson **Affiliation:** Skeo
Subject Name: Resident 2 **Affiliation:** N/A
Subject Contact Information: N/A
Time: 12:00 p.m. **Date:** 10/02/2017
Interview Location: Resident's front yard

Interview Format (circle one): (In Person) Phone Mail Other:

Interview Category: Residents (translated from Spanish)

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

   No.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   Nothing.

3. What have been the effects of the Site on the surrounding community, if any?

   None.

4. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?

   No.

5. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

   No. Like this (in person).

6. Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?

   No, we have city water.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

   No.

Geneva Industries/Fuhrmann Energy Superfund Site **Five-Year Review Interview Form**

Site Name: Geneva Industries/Fuhrmann Energy **EPA ID No.:** TXD980748453

Interviewer Name: Brice Robertson **Affiliation:** Skeo
Subject Name: Resident 3 **Affiliation:** N/A
Subject Contact Information: N/A
Time: 12:10 p.m. **Date:** 10/02/2017
Interview Location: Resident's front yard

Interview Format (circle one): (In Person) Phone Mail Other:

Interview Category: Residents

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

   No.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

   Nothing.

3. What have been the effects of the Site on the surrounding community, if any?

   None.

4. Have there been any problems with unusual or unexpected activities at the Site, such as emergency response, vandalism or trespassing?

   No.

5. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

   No. Like this (in person).

6. Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purpose(s) is your private well used?

   No, we have city water.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

   No.

APPENDIX H – SCREENING LEVEL RISK ASSESSMENT

The soil cleanup goal for total PCBs was based on the cancer risk of 1×10^{-4} for residential use. However, residential use is prohibited at the Site. The soil cleanup goal was compared to the current EPA RSL for Aroclor 1260 because there is no RSL for total PCBs (Table H-1). The cleanup goal is still valid for industrial use.

Table H-1: Soil Cleanup Goal – Screening Level Risk Assessment

Soil Contaminant	ROD Cleanup Goal (mg/kg)	EPA Industrial RSL[a] (mg/kg)		Industrial Risk Level	
		1×10^{-6} Risk	HQ = 1	1×10^{-6} Risk[b]	Noncancer HQ
Total PCBs	100	0.99[c]	NA	1×10^{-4}	NA

Note:
mg/kg = milligram per kilogram
NA = Not available
HQ = Hazard Quotient

a. Current RSLs, dated November 2017, are available at https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-november-2017 (accessed 12/21/2017).
b. Cancer risks were calculated using the following equation, based on the fact that RSLs are derived based on 1×10^{-6} risk:
   Cancer risk = (remedial goal ÷ cancer RSL) × 10^{-6}
c. Based on Aroclor 1260 RSL