Site Investigation Report

11 A Connell Street, Tax Assessor's Plat 8-7, Block 16 Lot 5

Tiverton,
Rhode Island

Prepared for: **New England Gas Company**

Prepared by: ***VHB*/Vanasse Hangen Brustlin, Inc.**
Providence, Rhode Island

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December 2003

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Executive Summary

On behalf of New England Gas Company (Client), Vanasse Hangen Brustlin, Inc. (VHB) has prepared this Site Investigation Report (SIR) in conjunction with the SIR of the "Bay Street Suspected Fill Area". The subject property is located at 11 A Connell Street in Tiverton, Rhode Island and is further identified as Town of Tiverton Tax Assessor's Plat 8-7, Block 16, lot 5 (the Site). The Site is located within the Bay Street Suspected Fill Area as defined by RIDEM. Based on historical information, observations made during Site Investigation (SI) activities, and laboratory analytical results, the subject property appears to have different contamination characteristics and have been impacted by other potentially responsible parties. Based upon these findings, the property was separated from the Bay Street Suspected Fill Area Site Investigation Report.

The SI field activities consisted of the advancement of soil borings, the collection of surficial soil samples from depth intervals of 0 to 6 inches and 0 to 2 feet, and collection of a subsurface soil sample.

The Rhode Island Department of Environmental Management (RIDEM) issued a Letter of Responsibility (LOR) to the New England Gas Company (NEGC) on March 17, 2003 requesting that NEGC complete an SIR for the Site. The LOR was triggered by the discovery of fill material below Bay Street during the installation of a sewer main. RIDEM has alleged that portions of the fill may have originated from a former manufactured gas plant.

The Site is approximately 14,375 square feet and is currently improved with a residential building that was built in 1928 and a small commercial building utilized as a variety store/ sandwich shop.

Sanborn Maps of the area indicate that a former chemical works and a former hat factory were located on the west of Bay Street, between the railroad right-of-way and Mount Hope Bay, approximately 500 feet west of the Site. During an interview with the homeowner, she indicated that while tilling her former garden, hat brims and other hat materials (leather/felt) were often uncovered in the soil.

Laboratory analytical results of surficial soil samples collected proximate to Bay Street indicated concentrations of polycyclic aromatic hydrocarbons that exceed

RIDEM Method 1 Residential Direct Exposure Criteria (RDEC). This finding is consistent with the findings of the Bay Street Suspected Fill Area SIR.

Hat materials (felt/leather) were observed in a surficial soil boring proximate to the former location of the garden on the southeastern portion of the property. Elevated concentrations of substances associated with the former processes of hat manufacturing (mercury, arsenic, and lead) have been detected in surficial soil samples. There were also observations of coal dust in the southeastern portion of the property, however, the source of the coal dust can not be determined. A fire pit with partially burned pallets was observed on the southeastern portion of the property and may be the source of detected PAHs in the Site soils.

On behalf of the Town of Tiverton, EA Engineering, Science, and Technology, Inc. of Warwick, Rhode Island advanced borings along the area roadways to characterize fill materials located beneath the Town roadways. Borings that were located proximate to the Site and along A Connell Street were identified as "A Connell-1", A Connell-2", and "A Connell-3". Observations from A Connell-3 indicated the presence of felt material at an approximate depth of 0.5 to 2.1 feet. Laboratory analytical results from this sample indicated concentrations of arsenic (12.9 ppm), lead (327 ppm), and mercury (73.4 ppm) at levels that exceeded RIDEM RDECs. There were also elevated concentrations of PAHs that exceeded RIDEM RDECs. There were no samples submitted from A Connell-1 or A Connell-2 for laboratory analysis.

Based upon the existence of multiple potential sources of contamination, including, hat waste, lead-based paint, a fire pit, and coal dust; none of which are related to the suspected fill, VHB has concluded that it is not appropriate for NEGC to screen nor select a potential site remedy and that no further actions on the part of NEGC should be conducted.

1 Introduction

On behalf of New England Gas Company (Client), Vanasse Hangen Brustlin, Inc. (VHB) has prepared this Site Investigation Report (SIR) in conjunction with the SIR of the "Bay Street Suspected Fill Area". The subject property is located at 11 A Connell Street in Tiverton, Rhode Island and is further identified as Town of Tiverton Tax Assessor's Plat 8-7, Block 16, lot 5 (the Site). The Site is located within the Bay Street Suspected Fill Area. Based on historical information, observations made during Site Investigation (SI) activities, and laboratory analytical results, the subject property appears to have different contamination characteristics and have been impacted by other potentially responsible parties. Based upon these findings, the property was separated from the Bay Street Suspected Fill Area Site Investigation Report.

The SI field activities consisted of the advancement of soil borings, the collection of surficial soil samples from depth intervals of 0 to 6 inches and 0 to 2 feet, and collection of a subsurface soil sample. Refer to **Figure 1** for a Site Location Map and **Figure 2** for a Site Plan.

The Rhode Island Department of Environmental Management (RIDEM) issued a Letter of Responsibility (LOR) to the New England Gas Company (NEGC) on March 17, 2003 requesting that NEGC complete an SIR for the Site. The LOR was triggered by the discovery of fill material below Bay Street during the installation of a sewer main. RIDEM has alleged that portions of the fill may have originated from a former manufactured gas plant.

The scope of services for this SIR was completed consistent with the Site Investigation Work Plan (SIWP) approved by RIDEM on May 7, 2003 and the limitations provided in the Limitations section of this report. This SIR is completed in accordance with Section 7.08 of the RIDEM *Rules and Regulations for Investigation and Remediation of Hazardous Material Release,* (Remediation Regulations) as amended August 1996. A RIDEM SIR checklist is provided as **Appendix B** that cross-references the specific sections and pages in this SIR that provide information that addresses each stated requirement. The goal of these investigatory activities was to gather sufficient data to allow an assessment of the nature and extent of suspected fill material.

This SIR has been prepared on behalf of and for the exclusive use of our Client. This SIR and the findings contained herein shall not, in whole or in part, be disseminated

or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of VHB. However, VHB acknowledges and agrees that this report will be part of the public document file upon approval by RIDEM.

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Site Description

Location and Legal Description

The Site is an approximately 14,375 square foot lot located at 11 A Connell Street in Tiverton, Rhode Island (Refer to Figure 1). The parcel comprising the Site is identified as the Town of Tiverton's Tax Assessor's Plat 8-7, Block 16, Lot 5. The current property owner is listed as Carlton and Pauline Carvalho. The Site is improved by a two-story residential house and a small, one-story commercial building operated as a variety store/sandwich shop. According to the Tax Assessor's field card, the house was constructed in 1926. A copy of the Tax Assessor's field card is provided as **Appendix C**.

Environmental Setting

The Site is located on the corner of A Connell and Bay streets in a predominantly residential area (according to the Assessor's field card, the property is zoned as R15 (residential, 15,000 square feet)); however there are some commercial/industrial properties within close proximity of the Site. These include a petroleum terminal located approximately 400 feet west of the Site, the Fall River wastewater treatment facility located approximately 350 feet northwest of the Site, and a restaurant located approximately 200 feet northwest of the Site. There is a former railroad right-of-way (RRROW) located west of Bay Street and east of the petroleum terminal.

Regional Setting/Topography

The Site is approximately located at -71.19332 longitude and 41.673734 Latitude. Based on a review of the USGS Topographic Map, Fall River, MA – RI Quadrangle (photorevised 1979), surface elevation at the Site is approximately 30 feet above National Geodetic Vertical Datum of 1929. The Site topography is relatively flat, but regional topography slopes steeply from east to west. Based on the steep regional topography and the presence of nearby surface waters, there are strong indications that groundwater flow is in a westerly direction.

Soils

According to Rector (1981), soils at the Site are mapped as Merrimac-Urban land complex (MU). The MU mapping units are indicative of areas that have been disturbed by cutting and filling and areas covered by streets, parking lots, and structures. This complex occurs on terraces and outwash plains in densely populated areas and are well drained.

In general, site soils are either covered with grass, pavement, and structures and entrainment by wind or erosion appears to be minimal.

Bedrock and Surficial Geology

According to the Bedrock Geology Map of Rhode Island (Hermes et al., 1994), bedrock in the area consists of stratified rocks and are identified as Sachuest Arkose. This formation consists of gray, smoky-quartz granule-conglomerate, sandstone, and pebble to cobble conglomerate, interbedded with black carbonaceous phyllite. There were no bedrock outcrops observed on the Site.

The Site is located at the foot of a drumloidal hill and surficial geology consists of outwash deposits underlain by glacial till.

Groundwater Water Resources

According to RIDEM, groundwater resources underlying the Site are classified as GA. Groundwater classified as GA is that which the Director has designated to be suitable for public or private drinking water use without treatment. According to the RIDEM Geo-Data Viewer, there are no groundwater recharge zones, groundwater reservoirs, sole source aquifers, nor wellhead protection areas within the Site or within 500 feet of the Site.

Surface Water Resources

Mount Hope Bay is located within approximately 800 feet from the Site. This area of Mount Hope Bay (Waterbody ID RI0007032) is classified by RIDEM as Class SB1 waters. According to RIDEM (1997), Class SB1 waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value. Primary contact recreational activities may be impacted due to pathogens from approved waste water discharges. The RIDEM Draft 2002 303(d) List of Impaired Waters identifies this segment of Mount Hope Bay

as being impaired by nutrients, low dissolved oxygen, thermal modifications, and pathogens and as having biodiversity impacts.

The Rhode Island Coastal Resources Management Council identifies the near-shore portions of Mount Hope Bay that are adjacent to the Site as Type 6 waters. These waters are extensively altered in order to accommodate commercial and industrial activities (CRMC, 1977).

Current and Past Use of the Site and Adjoining Properties

Historical Site information was gathered from historic aerial photographs and Sanborn Map reviews. These reviews are summarized below.

Aerial Photographs

1939 Aerial Photograph
Land use in the Site area appears to be primarily residential and agricultural, however; there does appear to be a residential building located on the Site. The area roads appear to be unpaved. The petroleum terminal is located west of the Site and appears to have seven large capacity aboveground storage tanks (ASTs).

1952 Aerial Photograph
This photograph appears to be similar to the 1939 photograph with the exception of additional buildings opposite the Site on Bay Street.

1962 Aerial Photograph
The Site appears to be similar to the 1952 photograph. Two additional large-capacity ASTs have been constructed at the terminal facility, reportedly increasing the facility capacity to 25 million gallons (EA, 2003).

1965 Aerial Photograph
This photograph appears to be similar to the 1962 photograph.

1972 Aerial Photograph
The density of residential development has increased in the Site area, but the Site appears similar to the previous photographs. There is a cluster of large buildings that appears to have been developed north of State Avenue. The Fall River waste water treatment facility appears for the first time.

1995 Aerial Photograph
The Site appears unchanged. An additional tank has been constructed at the Fall River waste water treatment facility north of State Avenue.

1997 Aerial Photograph
This photograph appears similar to the 1995 aerial photograph.

Sanborn Maps

VHB reviewed various Sanborn Maps for historical information. Sanborn Maps are periodically issued fire insurance maps dating back to the late 1800's that show building use, underground storage tanks (USTs), heating sources, building construction, and other useful information. Copies of all relevant mapping are included in **Appendix D**.

Sanborn Maps depicting the Site were not available, but there was mapping for the industrial property (currently occupied by the fuel terminal and identified as Block 24, Lot 27) located approximately 400 feet west of the Site. A summary of the reviews is provided below:

Block 24 Lot 27

1902 Sanborn Map
The area immediately south of State Avenue and along Mount Hope Bay is occupied by "Lanola Beach". South and east of the beach is the "Billings, Clapp, & Company Chemical Works" facility. The facility consists of approximately 9 buildings. There are buildings identified as "Storage and Bottling", "Fluid Extraction and Tablet Manufacturing", "Drying room and Grinding and Mortar Mills", "Machine and Box Shop", "Store House No.1, general storage (chemicals)", "Storehouse No. 2, general storage (chemicals)", a building housing an "ether retort", "Bottle and Jug Storage", and a "Naphtha Shed". There is a spur rail from the railroad right of way entering on the east-central portion of the lot that terminates on the southwest portion of the lot.

1905 Sanborn Map
The property is shown as being occupied by "Seaside Mills", owned by Wm. J Dunn and operates as a manufacturer of absorbent cotton. The buildings on the property appear to have the same configuration, but appear to be used mostly for storage, picker houses, and bleaching. The Naptha Shed is no longer depicted. The beach located south of State Avenue appears to still exist, but it is not identified on the map.

1911 Sanborn Map
The property is shown as being occupied by the Bristol County Hat Company. The buildings on the property appear to have the same configuration. The buildings identified on the map consist of a "Shellac and hat storage building", a building for "Extracting shellac from felt hats", "Blowing, Sorting, and Drying" building, "Dusting, Blowing, Baling, & Picking" building, and an outdoor area for "Piles of

Hats in Bales". The rail spur is still depicted on the map. Lanola Beach is depicted south of State Avenue.

There was no other Sanborn Map coverage available for review after 1911.

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Records Review

A review of federal and state environmental databases and state and local records was conducted to help identify properties in the vicinity of the Site that have had a release or threat of release of oil and/or hazardous materials and may impact the environmental quality of the Site. VHB reviewed the following databases at the ASTM specified radii:

- National Priorities List (NPL); 1 mile - A database operated by the United States Environmental Protection Agency (USEPA) as an inventory of hazardous materials disposal sites that have been reported to the Federal government and been determined to be a priority for a Federally overseen cleanup.

- Resource Conservation and Recovery Act (RCRA) Transportation, Storage Disposal Facility (TSD); 1 mile - A database operated by the USEPA as an inventory of hazardous waste treatment, storage and disposal facilities.

- RCRA Generators (GEN); 0.25 mile - A database operated by the USEPA as an inventory of hazardous waste generators who store hazardous waste on their properties for periods not to exceed 90 days.

- RCRA Corrective Action Sites (COR); 1 mile - A database operated by the USEPA as an inventory of hazardous waste treatment, storage and disposal facilities requiring a Federally overseen cleanup.

- RCRA No Longer Regulated (NLR); 0.25 mile - A database operated by the USEPA as an inventory of former hazardous waste generators.

- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) Sites; 0.5 mile - A database operated by the USEPA as an inventory of potential hazardous materials sites that have been reported to the Federal government.

- Emergency Response Notification System (ERNS); 0.25 mile - A database operated by the USEPA as an inventory of hazardous materials or chemical spills.

- Facility Index System (FINDS); 0.25 mile - A database operated by the USEPA as an inventory of environmental permitted facilities (air, water, and hazardous materials).

- State Spills List (SPILLS); 0.25 mile - A database operated by the Rhode Island Department of Environmental Management of spills of hazardous materials and/or chemical. VHB reviewed SPILLS databases for the last 5 years.

- State Sites (STATE); 1 mile - A database operated by the Rhode Island Department of Environmental Management of properties regulated by the Rhode Island Remediation Regulations (hazardous materials and chemical sites).

- Underground Storage Tanks (UST); 0.25 mile - A database of underground storage tank facilities.

- Leaking USTs (LUST); 0.50 mile - A database of known leaking underground storage tank facilities.

- Solid Waste Landfills (SWL); 0.5 mile - A database of active and closed solid waste landfills.

A summary of the database search information and maps indicating the locations of specific properties is attached in **Appendix E**. Based on the findings of the database review, VHB determined that a review of selected files at RIDEM was necessary.

Bay Street Suspected Fill Area

The reader is referred to the Bay Street Suspected Fill Area Site Investigation Report by VHB, dated October 2003.

RCRA Generator Sites

The database identified several RCRA generators nearby the Site. Available information is summarized below:

<u>Inland Fuel Terminals, Inc., 25 State Avenue, Tiverton</u>
Inland Fuel Terminals, Inc. (Inland) is registered as a small quantities generator of hazardous waste (100 to 1,000 Kg/month) with a designation of RID980521355. According to a Biennial Report filed with RIDEM in 1999, Inland generated waste petroleum oils. The database also identified Inland as an ERNS in 1994 that was based on a complaint of sulphuric acid odors.

Whitey's Auto Repair, 110 Bay Street, Tiverton

Whitey's Auto Repair (Whitey's) was registered as generating 100 to 1,000 Kg/month of hazardous waste that appears to have consisted of waste oil and waste petroleum naphtha. According to the Biennial Reports, the naphtha was recycled by Safety Kleen and the waste oil was burned in a waste oil burner. Biennial Reports in the file were dated 1987, 1989, 1995, 1997, and 1999. According to the 1999 Biennial Report, "The property at 110 Bay Street is closed for business purposes. Whitey's Auto Repair has moved out of state... 2 years ago."

Aguiar's Auto, 34 State Avenue, Tiverton

Aguiar's Auto (Aguiar's) is registered as a small quantities hazardous waste generator and according to their Biennial Reports, generated waste oil, "parts cleaner/dry cleaner" waste, mineral spirits, lubricating oil, and hydraulic fluids. It appears that Safety Kleen received waste from this facility and that the facility also utilized a waste oil burner. The most recent Biennial Report was dated 1999.

Local Record Sources

North Tiverton Water District - VHB conducted a private well assessment by contacting the North Tiverton Water District (NTWD) to verify that the Site is connected to municipal water service. According to personnel at NTWD, the Site is connected to municipal water.

Town of Tiverton Tax Assessor's Office - Map and parcel numbers for the Site were obtained from at the Tiverton Tax Assessor's Office. VHB reviewed the Field Card for the Site which included a limited Chain of Title for the property to determine information regarding prior owners/uses of the Site. The Field Card is provided in **Appendix C.**

Historical and current ownership information was provided on the field card and is summarized below:

Table 1 Ownership History, 11 A Connell Street, Tiverton, RI.

Record of Ownership	Date
Carvalho, Carlton & Pauline	June 6, 1995
Carvalho, Carlton	July 24, 1970

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Site Reconnaissance

Visual observations were made at the Site regarding the use, storage, or disposal of OHM. Photographs taken of the Site are presented in the Photographs section of this report.

General Observations

The Site is located on the corner of Bay and Judson streets and is L-shaped (Refer to Figure 1 for a Site Location Map and Figure 2 for a Site Plan). The Site is improved with a 2-story residential house and a one-story commercial building utilized as a variety store/sandwich shop. The house is located on the northeast portion of the property with the commercial building located to the west of the house.

There is an asphalt parking area located west of the commercial building and a grassed area west of the parking lot that, at the time of the Site visit, had tables and chairs set up for customers of the shop. Immediately south of the commercial building were two recreational vehicles (RVs) with a wooden deck and canopy between and connecting the RVs.

The southeast portion of the property has two sheds oriented side-by-side that appears to be used for storage. South of the sheds is an area that, according to the owner, was formerly used as a vegetable garden. According to the owner, while historically tilling the garden, hat brims, felt material, and other hat materials would be uncovered. There was a fire pit located in this area and during the Site visit, partially burned pallets were observed in the fire pit, which could be a source of PAHs detected in the Site soil.

Utilities

According to interviews with municipal personnel, the Site is serviced by municipal water and overhead electricity. The area is also currently served by private individual septic disposal systems (ISDSs) and it is the goal of the Town to eventually tie the neighborhood to the sewer main installed by Starwood-Tiverton LLC.

According to the Tax Assessor's Field Card, the residential structure is heated by oil while the commercial structure is heated by propane gas.

Storage Tanks

There are nine large-capacity aboveground storage tanks (ASTs) located immediately west of the Site (Inland Fuel Terminals, Inc.). According to the Tax Assessor's field card, the residential structure has oil heat and the commercial structure is heated by propane.

Lead-Based Paint

According to the Tax Assessor's field card, the house was constructed in 1926. This point is important when evaluating the detection of lead in the Site soils as lead-based paint (LBP) was commonly used as exterior paint during and prior to the 1970's.

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Site Investigation Activities

To assess the nature and extent of potential impacts in the area, VHB conducted subsurface investigations that included the advancement of soil borings, the collection of surficial (0 to 6 inches and 0 to 2 feet) samples and subsurface samples and laboratory analysis of these samples by a Rhode Island certified laboratory.

Soil Borings

VHB completed 3 soil borings on August 27, 2003. Copies of the boring logs are included in **Appendix F**. Please refer to **Figure 2** for the VHB soil boring locations. From these borings, VHB collected seven samples. It should be noted that boring locations were measured in the field using a 200-foot measuring tape from fixed points in the area (corner of houses, street intersections) and were transposed onto an aerial photograph of the Study Area with a scale of 1 inch equals 100 feet. As such, boring locations depicted on the Site Plan are approximate. Zebra Environmental Corporation of Sutton, Massachusetts used an All Terrain Vehicle (ATV)-mounted Geoprobe to install the borings.

Visual Observations

Soil Stratigraphy

Soil observations made during the SI activities are described below. Soil boring logs are provided in **Appendix F**.

A surficial boring (0 to 2 feet) (1605-SS1)was advanced on the western portion of the property, along Bay Street. Observations consisted of dark brown very fine sand and silt overlying a light tan to white very fine sand with a trace of silt with no fill material observed.

A second surficial boring and a deep boring were advanced in the southeast portion of the Site at the request of the homeowner. According to the owner, the deep boring was located in their former garden area, where they historically observed hat materials while tilling the garden. Observations from the boring identified an

approximately 1 foot layer of uncombusted coal dust within the upper 2 feet and, as such, a surficial sample (1605-SS3) was collected from the boring at a depth of 0 to 2 feet and the subsurface sample (1605-1) was collected below this layer at approximately 3 to 4 feet. Depth to groundwater was approximated to be 4 feet.

A second surficial boring (1605-SS3) was advanced approximately 40 feet southeast of the deep boring. Observations from this boring identified an approximately 0.5 foot layer of uncombusted coal dust and some felt or leather material was observed at approximately 1.5 feet. The felt or leather material indicated hat materials in the soil and a discrete sample was collected of this material and surrounding soil.

Field Analytical Results

VHB VOC Screening

VHB soil samples were collected from a four-foot long stainless steel tube lined with a clear acetate liner driven by a vibratory hammer. During the excavations, soil samples were collected and placed in pre-cleaned containers. A portion of each sample was screened for VOCs using a photoionization detector (PID) by the standard "jar-headspace" method.

The highest VOC headspace concentrations (0.4 ppm) came from soil collected from 1605-SS1, located proximate to Bay Street. All other headspace responses were non-detectable and are recorded in the soil boring logs in **Appendix D**.

Soil Boring Laboratory Analytical Results

Six soil samples (2 samples collected from a depth of 0 to 6 inches BSG, three samples collected from a depth of 0 to 2 feet BSG, and a subsurface soil sample collected at a depth of 3 to 4 feet BSG) and a discrete grab sample of presumed hat material and surrounding soil were collected and transported under chain of custody protocol to a Rhode Island-approved laboratory for analysis. The six soil samples were collected consistent with the RIDEM-approved SIWP and analyzed for volatile organic compounds (VOCs) via EPA Method 8021, semi-volatile organic compounds via EPA Method 8270, total petroleum hydrocarbons (TPH) via EPA Method 8100m, 13 Priority Pollutant Metals (PPM13), and Total Cyanide via EPA Method 9010.

It is common knowledge that historic hat manufacturing processes utilized mercury, arsenic and lead and as such, a sample that consisted of felt material and surrounding soil was analyzed for SVOCs and PPM13. In addition, a discrete sample of the felt material only and a discrete sample of the surrounding soil only were analyzed for mercury. The RIDEM Method 1 Residential Direct Exposure Criteria

(RDECs) were used to evaluate the data. The tables summarizing the laboratory analytical results are provided in **Table 2**. Certificates of Analysis are provided as **Appendix G**.

It should be noted that although the arsenic and beryllium concentrations from the soil samples that were not associated with the hat waste exceeded the RIDEM RDECs (arsenic concentrations ranged from 3.49 to 6.57 ppm), a background study in the area (VHB, 2003) indicates that these elevated concentrations are naturally occurring.

Surface Soil

Surface soil samples were collected from 0 to 2 feet, consistent with the RIDEM-approved SIWP and RIDEM Remediation Regulations. VHB also collected samples of the top six inches at each surficial soil sample location to better define the vertical profile of the surface soil. This sampling was accomplished by hand augering immediately adjacent to the 0 to 2 foot boring.

Undisturbed grab samples were collected for VOC analysis and total volatile organic compound (TVOC) headspace screening via the Jar-Headspace Method. Subsequent to this sampling, the 0 to 2 foot soil interval was composited in a dedicated aluminum pan and placed in pre-cleaned jars for the remaining analysis. This same standard operating procedure was also used for the 0 to 6 inch sample.

Laboratory analytical results of the surface soil sample identified as 1605-SS1 indicated concentrations of polycyclic aromatic hydrocarbons that exceeded RIDEM criteria at both the 0 to 6 inch and 0 to 2 foot intervals. This sample was collected proximate to Bay Street and these findings appear to be consistent with findings of borings advanced throughout the Bay Street Suspected Fill Area which has found it more likely to find impacted soil nearby public streets than elsewhere on properties.

There were 3 samples from boring 1605-SS2 that were laboratory analyzed. Consistent with the sampling protocol of the Study Area, a composite sample was collected from 0 to 2 feet identified as 1605-SS2 and a composite sample was collected from 0 to 6 inches identified as 1605-SS2A. The sample identified as 1605-SS2 (felt/leather) was analyzed three times. For clarity, a more descriptive designation was given for each analysis in this report. The sample consisted of felt material and surrounding soil and was initially analyzed for SVOCs and PPM13 and given the designation 1605-SS2 (Felt & Soil). An analysis of the Felt/Leather material only was completed for mercury and is given the designation that appears on the Chain of Custody, 1605-SS2 (Felt/Leather). An analysis of the surrounding soil only was completed for mercury and is given the designation 1605-SS2 (Soil). The laboratory analytical results are summarized in **Table 2**.

Laboratory analysis of the 0 to 6 inch sample indicated elevated levels of lead and arsenic (above calculated background levels). Mercury, arsenic, benzo (a) pyrene,

and chrysene concentrations in the 0 to 2 foot sample indicated exceedances of the RIDEM RDEC.

The Felt/Leather sample had a mercury concentration of 3,890 ppm, while the soil directly surrounding the felt had a mercury concentration of 1,290 ppm. The analysis of the sample that contained both felt/leather and surrounding soil indicated mercury concentrations of 892 ppm, arsenic concentrations of 75.8 ppm, lead concentrations of 313 ppm, and several PAH concentrations that exceed RIDEM RDECs.

The sample identified as 1605-SS3 (collected from the "deep boring" at the 0 to 2 foot interval in the former garden area) also had indications of elevated concentrations of mercury, arsenic, and lead, which is consistent with the statements by the homeowner indicating that hat materials had historically been observed in the garden area and the elevated concentrations of the same compounds in the 0 to 6 inch sample.

On behalf of the Town of Tiverton, EA Engineering, Science, and Technology, Inc. of Warwick, Rhode Island advanced borings along the area roadways to characterize fill materials located beneath the Town roadways. Borings that were located proximate to the Site and along A Connell Street were identified as "A Connell-1", A Connell-2", and "A Connell-3". Observations from A Connell-3 indicated the presence of felt material at an approximate depth of 0.5 to 2.1 feet. Laboratory analytical results from this sample indicated concentrations of arsenic (12.9 ppm), lead (327 ppm), and mercury (73.4 ppm) at levels that exceeded RIDEM RDECs. There were also elevated concentrations of PAHs that exceeded RIDEM RDECs. There were no samples submitted from A Connell-1 or A Connell-2 for laboratory analysis.

Table 2 Laboratory Analytical Results, 11 A Connell Street, Tiverton, RI.

Block and Lot:		Block 16, Lot 5								
Plat:		Plat 8-7								
Date Sampled:		8/27/2003								
Sample I.D.		1605-1	1605-SS1	1605-SS1A	1605-SS2	1605-SS2A	1605-SS3	1605-SS2 (Felt & Soil)	1605-SS2 (Felt/Leather)	1605-SS2 (Soil)
Sample Depth:		3-4 ft	0-2 ft	0-6 in	0-2 ft	0-6 in	0-2 ft	1.45-1.7 ft	1.45-1.7 ft	1.45-1.7 ft
Analyte - BTEX (ppm)	**Limit**							--	--	--
Benzene	2.5	< 0.0402	< 0.0416	< 0.0528	< 0.0906	< 0.0566	< 0.0905	--	--	--
Ethylbenzene	71	< 0.0402	< 0.0416	< 0.0528	< 0.0906	< 0.0566	< 0.0905	--	--	--
Toluene	190	< 0.0402	< 0.0416	< 0.0528	< 0.0906	< 0.0566	< 0.0905	--	--	--
Xylenes (Total)	110	< 0.0804	< 0.0833	< 0.106	< 0.181	< 0.113	< 0.181	--	--	--
Metals (ppm)										
Beryllium	0.4	0.107	0.128	0.192	0.2	**0.766**	0.187	**0.416**	--	--
Chromium	1400	4.95	2.99	5.75	16.8	16.6	18.8	175	--	--
Copper	3100	10	7.11	10.6	26.8	55.9	88	194	--	--
Lead	150	< 7.63	35.3	72.2	57.2	**185**	**200**	**313**	--	--
Nickel	1000	2.82	< 1.5	3.46	4.35	6.7	3.94	9.15	--	--
Zinc	6000	20.1	16.8	30.1	80	273	190	255	--	--
Arsenic	1.7	**4.73**	**3.49**	**6.57**	**6.73**	**18.6**	**42.3**	**75.8**	--	--
Mercury	23	10.2	1.99	2.94	**26.5**	14.6	**42.2**	**892**	**3,890**	**1,290**
TPH (ppm)	500	< 30.2	< 29.3	33.4	< 35.8	< 35.6	< 34.5	--	--	--
SVOCs (ppm)										
Acenaphthene	43	< 0.394	< 0.383	< 0.392	< 0.0277	< 0.0278	< 0.027	0.0826	--	--
Acenaphthylene	23	< 0.394	< 0.383	< 0.392	0.0807	0.191	0.0266	0.133	--	--
Anthracene	35	< 0.394	< 0.383	< 0.392	0.12	0.0755	0.0459	0.436	--	--
Benzo(a)anthracene	0.9	< 0.394	**0.922**	**1.46**	0.371	0.297	0.281	**1.64**	--	--
Benzo(a)pyrene	0.4	< 0.394	**0.858**	**1.33**	**0.456**	0.366	0.336	**1.54**	--	--
Benzo(b)fluoranthene	0.9	< 0.394	**1.02**	**1.4**	0.555	0.424	0.486	**1.68**	--	--
Benzo(g,h,i)perylene	0.8	< 0.394	0.423	0.625	0.389	0.316	0.192	**1**	--	--
Benzo(k)fluoranthene	0.9	< 0.394	0.69	**1.29**	0.366	0.367	0.297	**1.71**	--	--
Carbazole	NA	< 0.394	< 0.383	< 0.392	0.0406	< 0.0185	< 0.018	0.32	--	--
Chrysene	0.4	< 0.394	**1.06**	**1.7**	**0.435**	0.375	0.296	**2.23**	--	--
Dibenzofuran	NA	< 0.394	< 0.383	< 0.392	0.0272	< 0.0185	< 0.018	0.0833	--	--
Fluoranthene	20	< 0.394	1.65	2.67	0.808	0.459	0.35	3.16	--	--
Fluorene	28	< 0.394	< 0.383	< 0.392	0.0498	< 0.0185	< 0.018	0.131	--	--
Indeno(1,2,3-cd)Pyrene	0.9	< 0.394	< 0.383	0.592	0.321	0.244	0.154	0.878	--	--
Naphthalene	54	< 0.394	< 0.383	< 0.392	< 0.0277	< 0.0278	< 0.027	0.0818	--	--
Phenanthrene	40	< 0.394	0.626	1.45	0.593	0.224	0.168	2.48	--	--
Pyrene	13	< 0.394	2.21	3.59	0.99	0.68	0.637	9.24	--	--
Total Cyanide (ppm)	200	< 3	< 2.9	< 2.9	< 3.5	< 3.4	4.7	--	--	--

Notes: Concentrations in **bold** denote exceedance of the RIDEM Residential Direct Exposure Criteria

-- Sample not analyzed for that parameter

Subsurface Soil

Consistent with the RIDEM-approved SIWP, subsurface soil samples were collected based on visual observations, olfactory indications, or indications from nearby borings. In the absence of any of these indications, a sample was collected from the water table interface.

Grab samples were collected from the acetate sleeves and placed in pre-cleaned jars and were submitted for laboratory analysis. There were no compounds that exceeded RIDEM Criteria in the 3 to 4 foot sample.

7

Remedial Alternatives

Based upon the existence of multiple potential sources of contamination, including, hat waste, lead-based paint, a fire pit, and coal dust, all of which are not related to the suspected fill, VHB has concluded that it is not appropriate for NEGC to screen nor select a potential site remedy and that no further actions on the part of NEGC should be conducted.

8

Certifications

In accordance with the requirements of *State of Rhode Island Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (Remediation Regulations) as amended August 1996, the undersigned attest that to the best of their knowledge, and at the time of completion, the information contained herein is a complete and accurate representation of Site Conditions.

For Vanasse Hangen Brustlin, Inc.

Project Manager: _____
Timothy M. O'Connor, P.E.

For The New England Gas Company

Project Manager: _____
Robert A. Young

9 References

CRMC, 1977. *The State of Rhode Island Coastal Resources Management Program*, as Amended June 28, 2001.

EA, 2002. *Emergency and Short-Term Response Report, Mount Hope Bay Sewer Interceptor Project, Tiverton, Rhode Island*, December 2002.

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EA, 2003a. *Site Investigation Report Addendum, Town of Tiverton, Tiverton, Rhode Island*, August 2003.

Rector, 1981. *Soil Survey of Rhode Island.*

RIDEM, 1996. *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases*, March 1993, Amended August 1996.

RIDEM, 1998. *Groundwater Classification Map*, October 1998.

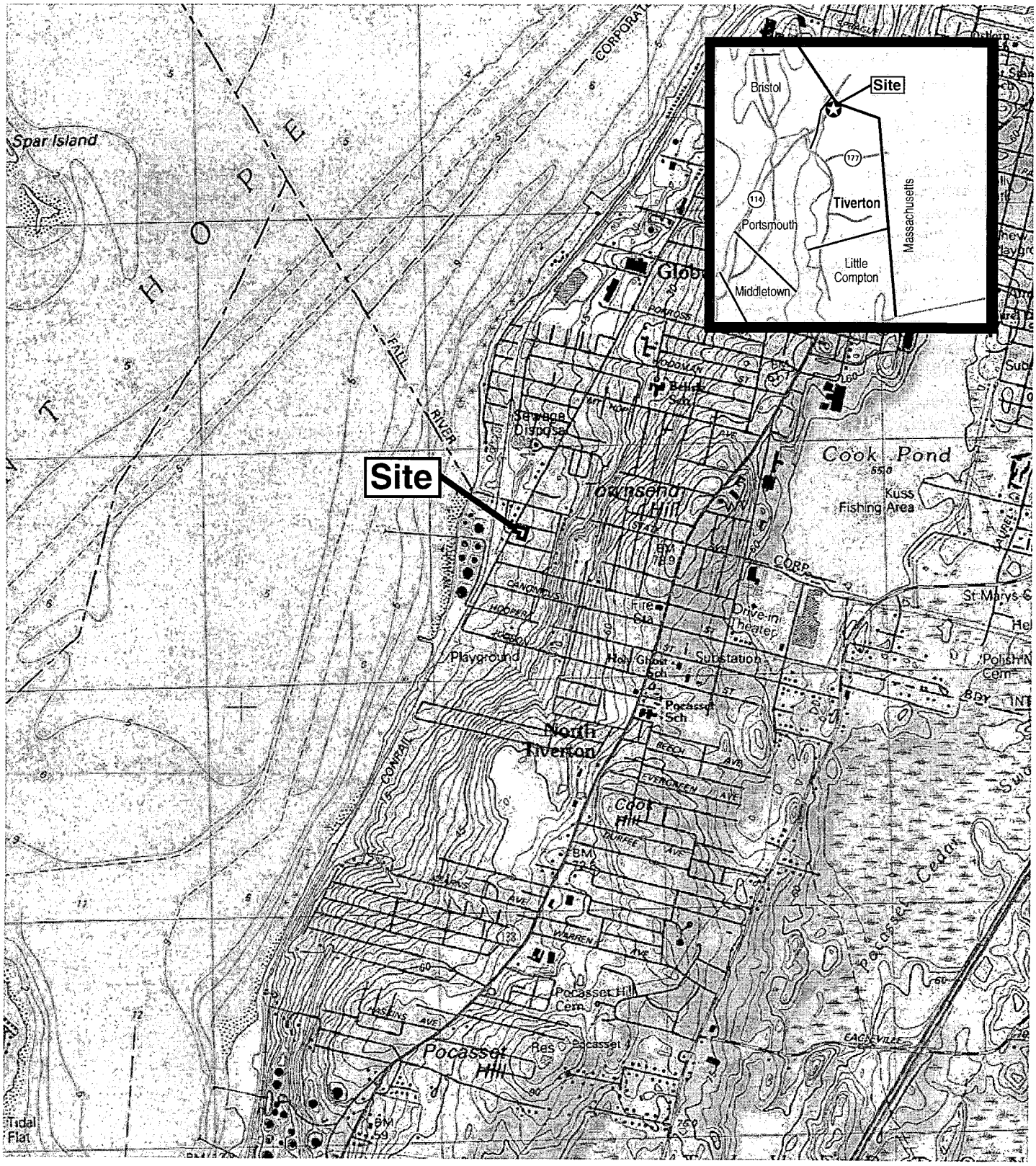
RIDEM, 2000. *Water Quality Regulations*, Amended June 23, 2000.

RIDEM, 2002. *State of Rhode Island 2002 303(d) List of Impaired Waters, Draft*, December 2, 2002.

USGS, 1979. US Geological Survey 7.5 Minute Series Topographic Map, Fall River Quadrangle.

VHB, 2003. Site Investigation Report, Bay Street Suspected Fill Area, Tiverton, RI, October, 2003.

Figures



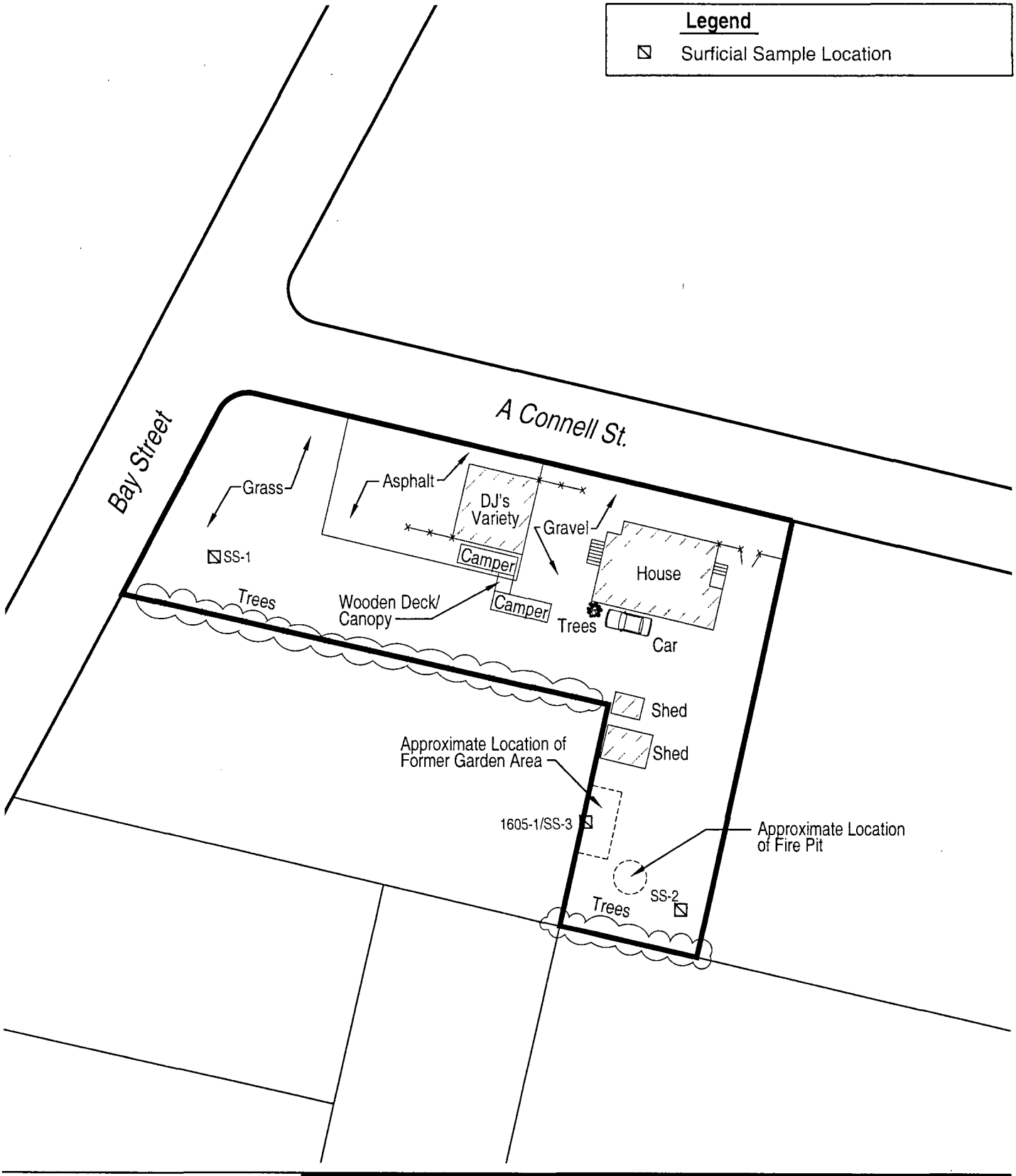
Source: Fall River, Mass-RI. (1979) U.S.G.S. Quadrangle

0 1000 2000 Feet

Vanasse Hangen Brustlin, Inc.

Site Location Map
11 A Connell Street
Plat 8-7, Block 16, Lot 5
Tiverton, Rhode Island

Figure 1

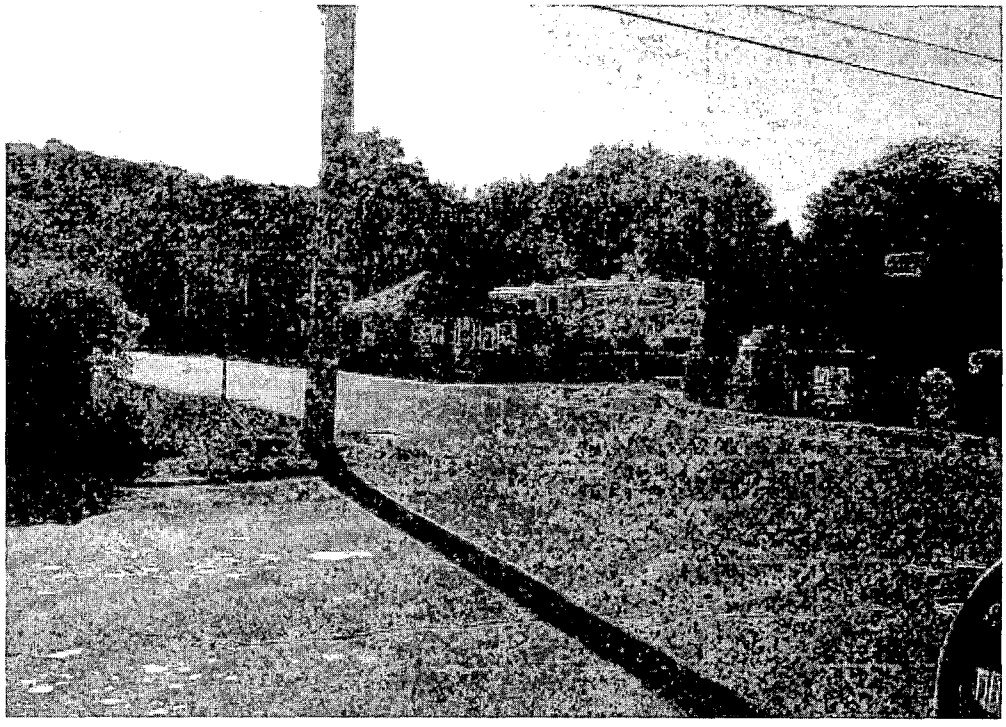


Vanasse Hangen Brustlin, Inc.

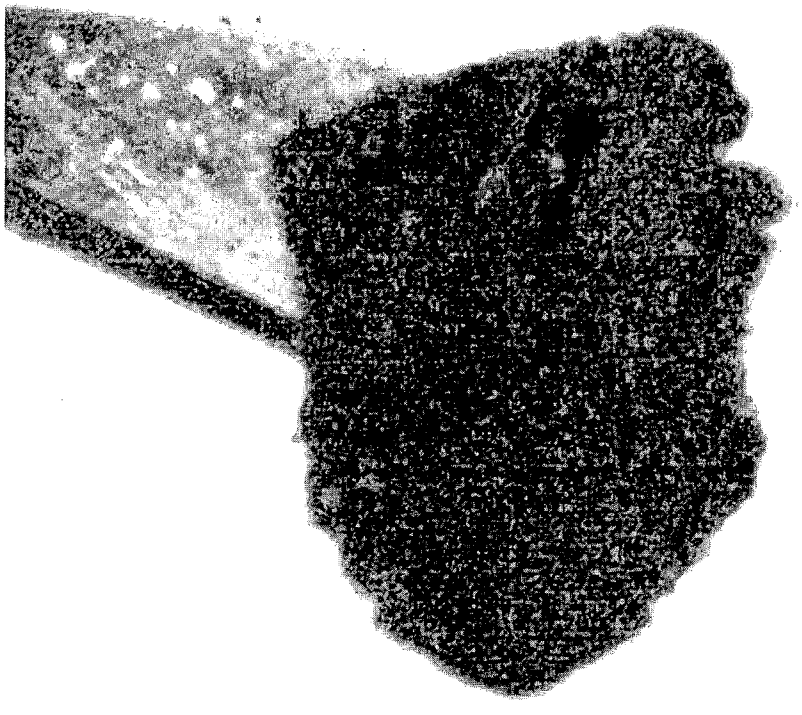
Site Plan
11 A Connell Street
Plat 8-7, Block 16, Lot 5
Tiverton, Rhode Island

Figure 2

Photographs



View of the Site from the northwest.



View of a sample of suspected felt or leather.

Site Photographs
11 A Connell Street
Plat 8-7, Block 16, Lot 5
Tiverton, Rhode Island

Appendix A – Limitations

New England Gas Company
Providence, RI

- This report has been prepared for the sole and exclusive use of New England Gas Company (Client), and is subject to and issued in connection with the Agreement and the provisions thereof. Any use or reliance upon information provided in this report, without the specific written authorization of Client and VHB, shall be at the User's sole risk.

- In preparing this report, VHB has obtained and relied upon information from multiple sources to form certain conclusions regarding potential environmental issues at and in the vicinity of the subject property. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information.

- No attempt has been made to assess the compliance status of any past or present Owner or Operator of the Site with any federal, state, or local laws or regulations.

- The findings, observations, and conclusions presented in this report are limited by the scope of services outlined in the Bay Street Suspected Fill Area Site Investigation Work Plan dated April 2003. Furthermore, the assessment has been performed in accordance with generally accepted engineering practices. No other warranty, expressed or implied, is made.

- The assessment presented in this report is based solely upon information gathered to date. Should further environmental or other relevant information be developed at a later date, Client should bring the information to the attention of VHB as soon as possible. Based upon an evaluation, VHB may modify the report and its conclusions.

Appendix B – SIR Checklist

Section 7 of the "Remediation Regulations"
Site Investigation Report (SIR) Checklist

Contact Name: Claude Masse/Vanasse Hangen Brustlin, Inc.
Contact Address: 530 Broadway, Providence, RI 02909
Contact Telephone: 401-272-8100

Site Name: Plat 8-7, Block 16 Lot 5
Site Address: 11 A Connell Street, Tiverton, RI

OFFICE USE ONLY
SITE INVESTIGATION REPORT (SIR) SITE:
PROJECT CODE:
SIR SUBMITTAL DATE:
CHECKLIST SUBMITTAL DATE:

DIRECTIONS: *The box to the left of each item listed below is for the administrative review of the SIR submission and is for **RIDEM USE ONLY.** Under each item listed below, cross-reference the specific sections and pages in the SIR that provide detailed information that addresses each stated requirement. Failure to include cross-references may delay review and approval. If an item is not applicable, simply state that it is not applicable and provide an explanation in the SIR.*

☐ 7.03.A. List specific objectives of the SIR related to characterization of the release, impacts of the release and remedy. *Introduction, page 1.*

☐ 7.03.B. Include information reported in the Notification of Release. A copy of the release notification form should be included in the SIR. *NA.*

☐ 7.03.C. Include documentation of any past incidents or releases. *Past incidences or releases may be found in Section 3, Records Review, page 9.*

☐ 7.03.D. Include list of prior property owners and operators, as well as sequencing of property transfers and time periods of occupancy. *See Appendix C and Table 1, page 10.*

☐ 7.03.E. Include previously existing environmental information which characterizes the contaminated-site and all information that led to the discovery of the contaminated-site.
Refer to Section 3,Records Review, page 9.

☐ 7.03.F. Include current uses and zoning of the contaminated site, including brief statements of operations, processes employed, waste generated, hazardous materials handled, and any residential activities on the site, if applicable. (This section should be linked to the specific objectives section demonstrating how the compounds of concern in the investigation are those that are used or may have been used on the site or are those that may have impacted the site from an off-site source.)
Section 2 Site Description, Environmental Setting subsection, page 3.

☐ 7.03.G. Include a locus map showing the location of the site using US Geological Survey 7.5-min quadrangle map or a copy of a section of that USGS map. *See Figure 1.*

☐ 7.03.H. Include a site plan, to scale, showing:

- ☐ Buildings: *See Figure 2.*
- ☐ Activities: *See Figure 2.*
- ☐ Structures: *See Figure 2.*
- ☐ North Arrow: *See Figure 2.*
- ☐ Borings/Wells: *NA*
- ☐ UIC Systems, septic tanks, UST, piping and other underground structures: *See Figure 2*
- ☐ Outdoor hazardous materials storage and handling areas: *NA*
- ☐ Extent of paved areas: *See Figure 2.*
- ☐ Location of environmental samples previously taken with analytical results: *See Figure 2 and Section 5, page 16.*
- ☐ Waste management and disposal areas: *NA*
- ☐ Property Lines: *See Figure 2.*

☐ 7.03.I. Include a general characterization of the property surrounding the area including, but not limited to:

- ☐ Location and distance to any surface water bodies within 500 ft of the site: *Section 2, page 4.*
- ☐ Location and distance to any environmentally sensitive areas within 500 ft of the site: *Section 2, page 4.*
- ☐ Actual sources of potable water for all properties immediately abutting the site: *Section 3, Local Records, page 10.*
- ☐ Location and distance to all public water supplies, which have been active within the previous two years and within one mile of the site: *NA*
- ☐ Determination as to whether the release impacts any off-site area utilized for residential or industrial/commercial property or both: *Section 5, page 16.*
- ☐ Determination of the underlying groundwater classification and if the classification is GB, the distance to the nearest GA area: *Section 2, page 4.*

☐ 7.03.J. Include classifications of surface and ground water at and surrounding the site that could be impacted by a release. *Section 2, page 4.*

☐ 7.03.K. Include a description of the contamination from the release, including:

- ☐ Free liquids on the surface: *NA.*
- ☐ LNAPL and DNAPL: *NA.*
- ☐ Concentrations of hazardous substances which can be shown to present an actual or potential threat to human health and any concentrations in excess of any of the remedial objectives: *Table 2, page 17*
- ☐ Impact to environmentally sensitive areas: *NA.*
- ☐ Contamination of man-made structures: NA.
- ☐ Odors or stained soil: *NA.*
- ☐ Stressed vegetation: *NA.*
- ☐ Presence of excavated or stockpiled material and an estimate of its total volume: *NA.*
- ☐ Environmental sampling locations, procedures and copies of the results of any analytical testing at the site: *See Figure 2 (sampling locations), Section 5 (sampling procedures), Appendix G Certificates of Analysis*
- ☐ List of hazardous substances at the site: *Table 2, page 17.*
- ☐ Discuss if the contamination falls outside of the jurisdiction of the Remediation Regulations, including but not limited to UST's, UIC's, and wetlands: *NA*

☐ 7.03.L. Include the concentration gradients of hazardous substances throughout the site for each media impacted by the release. *Table 2, page 17.*

☐ 7.03.M. Include the methodology and results of any investigation conducted to determine background concentrations of hazardous substances identified at the contaminated site. *Refer to Bay Street Suspected Fill Area Site Investigation Report, prepared by VHB and dated October 2003 for the arsenic background study.*

☐ 7.03.N. Include a listing and evaluation of the site specific hydrogeological properties which could influence the migration of hazardous substances throughout and away from the site, including but not limited to, where appropriate:

- ☐ Depth to GW: *Section 5, page 14.*
- ☐ Presence and effects of both the natural and man-made barriers to and conduits for contaminant migration: *NA.*
- ☐ Characterization of bedrock: *Section 2, page 4.*
- ☐ Groundwater contours, flow rates and gradients throughout the site: *Section 2, page 3.*

☐ 7.03.O. Include a characterization of the topography, surface water and run-off flow patterns, including flooding potential, of the site: *Section 2, pages 3.*

- ☐ 7.03.P. Include the potential for hazardous substances from the site to volatilize any and all potential impacts of the volatilization to structures within the site. *NA*
- ☐ 7.03.Q. Include the potential for entrainment of hazardous substances from the site by wind or erosion actions. *Section 2, page 4.*
- ☐ 7.03.R. Include detailed protocols for all fate and transport models used in the Site Investigation. *NA.*
- ☐ 7.03.S. Include a complete list of all samples taken, the location of all samples, parameters tested for and analytical methods used during the Site Investigation. (Be sure to include the samples locations and analytical results on a site figure). *Table 2 (list of samples) page 17, Figure 2 (sample location), Section 5, page 14 (analytical methods).*
- ☐ 7.03.T. Include construction plans and development procedures for all monitoring wells. Well construction must be consistent with the requirements of Appendix I of the Groundwater Quality Regulations. *NA.*
- ☐ 7.03.U. Include procedures for the handling, storage and disposal of wastes derived from and during the investigation. *NA. All solids were replaced in the borehole that it originated from.*
- ☐ 7.03.V. Include a quality assurance and quality control evaluation summary report for sample handling and analytical procedures, including, but not limited to, chain-of-custody procedures and sample preservation techniques. *See Appendix G for laboratory QA/QC.*
- ☐ 7.03.W. Include any other site-specific factor, that the Director believes, is necessary to make an accurate decision as to the appropriate remedial action to be taken at the site. *NA.*
- ☐ 7.04 Include Remedial Alternatives. The Site Investigation Report **must** contain a minimum of 2 remedial alternatives other than no action/natural attenuation alternative, unless this requirement is waived by the Department. It should be clear which of these alternatives is most preferable. All alternatives must be supported by relevant data contained in the Site Investigation Report and consistent with the current and reasonably foreseeable land usage, and documentation of the following: *Section 7 page 19.*

    - ☐ Compliance with Section 8 (RISK MANGEMENT);
    - ☐ Technical feasibility of the preferred remedial alternative;
    - ☐ Compliance with Federal, State and local laws or other public concerns; and
    - ☐ The ability of the performing party to perform the preferred remedial alternative.

☐ 7.05 **Certification Requirements:** The Site Investigation Report and all associated progress reports must include the following statements signed by an authorized representative of the party specified:

- ☐ A statement signed by an authorized representative of the person who prepared the Site Investigation Report certifying the completeness and accuracy of the information contained in that report to the best of their knowledge; and

- ☐ A statement signed by the performing party responsible for the submittal of the Site Investigation Report certifying that the report is a complete and accurate representation of the site and the release and contains all known facts surrounding the release to the best of their knowledge.

Section 8, page 19 for Certifications.

☐ 7.06 **Progress Reports:** If the Site Investigation is not complete, include a schedule for the submission of periodic progress reports on the status of the investigation and interim reports on any milestones achieved in the project.

7.07 **Public Notice**: Be prepared to implement public notice requirements per Section 7.07 and 7.09 of the Remediation Regulations when the Department deems the Site Investigation Report to be complete.

Appendix C – Tax Assessor's Field Card

Property Location: 11 A CONNELL ST *MAP ID:* 0/ 16/ 5/ / *Bldg #:* 2 *Card* 2 *of* 2 *Print Date:* 05/13/2003 12:52

Vision ID: 7131 *Other ID:* 08-07 16 5

CURRENT OWNER

CARVALHO CARLTON & PAULINE

11 A CONNELL ST
TIVERTON, RI 02878

TOPO.	UTILITIES	STRT./ROAD	LOCATION
1 Level	2 Public Wate	1 Paved	2 Suburban
	6 Septic		

SUPPLEMENTAL DATA

Account #	03117500	Condo	001
Sub-Div	JOHN F CHACI	Shdint	
Photo			
Ward		DEED TYPE	
Prec.		DEED DATE	
Fire			

GIS ID:

CURRENT ASSESSMENT

Description	Code	Appraised Value	Assessed Value
RES LND	0100	35,500	35,500
RESIDNTL	0100	61,600	61,600
RESIDNTL	0100	300	300
	Total	97,400	97,400

5306
TIVERTON, RI

VISION

RECORD OF OWNERSHIP

RECORD OF OWNERSHIP	BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.
CARVALHO CARLTON & PAULINE	442/ 131	06/06/1995			0	00
CARVALHO CARLTON M &	00103/1101	07/24/1970	Q	1	0	

PREVIOUS ASSESSMENTS (HISTORY)

Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value
Total:			*Total:*			*Total:*		

EXEMPTIONS

Year	Type/Description	Amount
1981	01 VETERAN	5,000
	Total:	5,000

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm. Int.

This signature acknowledges a visit by a Data Collector or Assessor

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	10,200
Appraised XF (B) Value (Bldg)	0
Appraised OB (L) Value (Bldg)	0
Appraised Land Value (Bldg)	100
Special Land Value	
Total Appraised Card Value	10,300
Total Appraised Parcel Value	97,400
Valuation Method:	Cost/Market Valuation
Net Total Appraised Parcel Value	97,400

NOTES

IF
WILL REOPEN AS A VARIETY
STORE

ECO=RESALE

BUILDING PERMIT RECORD

Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments

VISIT/CHANGE HISTORY

Date	ID	Cd.	Purpose/Result
4/2/93	PD	46	Change Value Chan
6/11/92	RD	10	Measu/LtrSnt Letter Se
1/1/92			
4/26/91	JD	00	Measur+Listed

LAND LINE VALUATION SECTION

B#	Use Code	Description	Zone	D	Frontage	Depth	Units		Unit Price	I. Factor	S.I.	C. Factor	Nbhd.	Adj.	Notes- Adj/Special Pricing	Adj. Unit Price	Land Value
2	1010	SINGLE FAM	R15				0.01	SF	27.55	1.00	1	1.00	0035	0.90		24.80	100
		Total Card Land Units					0.00	SF	*Parcel Total Land Area:*			14,375 SF				*Total Land Value*	100

Appendix D – Sanborn Maps

THIS DIAGRAM IS ALSO SHOWN ON SHEET No 73, OF THE MAP OF FALL RIVER, MASS.

Oct. 1902
TIVERTON
R.I.
NORTH TIVERTON

TON STATION.

ROAD

DEPOT

STATE LINE

MASSACHUSETTS
RHODE ISLAND.

AV.

LANDLA BEACH.

Mount Hope Bay

Pier

BILLINGS, CLAPP & CO. CHEMICAL WORKS.

N.Y.P.N. & B.R.R. (Stewart div.)

Boiler Storage

Bottle & Jug Storage

Dryng Rm

Grinding Barlers Mill

Machine & Box Shop

Store No. 1 Gen'l Stge (Chemicals)

Store No. 2 Gen'l Storage (Chemicals)

Shed.

Keeper's Dwelling

Night Watchman, Eco Mineto clock & stations. Hourly rounds. Power: Steam. Heat: Hot air and steam. Fuel: Coal. Lighted: Elec. and Gas inside and outside. Pipe Cyl. Hose, 1000 ft. each. Chemical with system of alarm. Sprinklers in buildings marked A.S. fed from reservoir on hill, tank and F.P., Hydrs spaced standard conn's as per plan. Buildings A.C.E.F.J.L & M. are covered with Gravel Roofs and sprinkled at close of season.

Naphtha

NO EXPOSURE

LOW TIDE

WATER LINE

BOARD FENCE 10' HIGH.

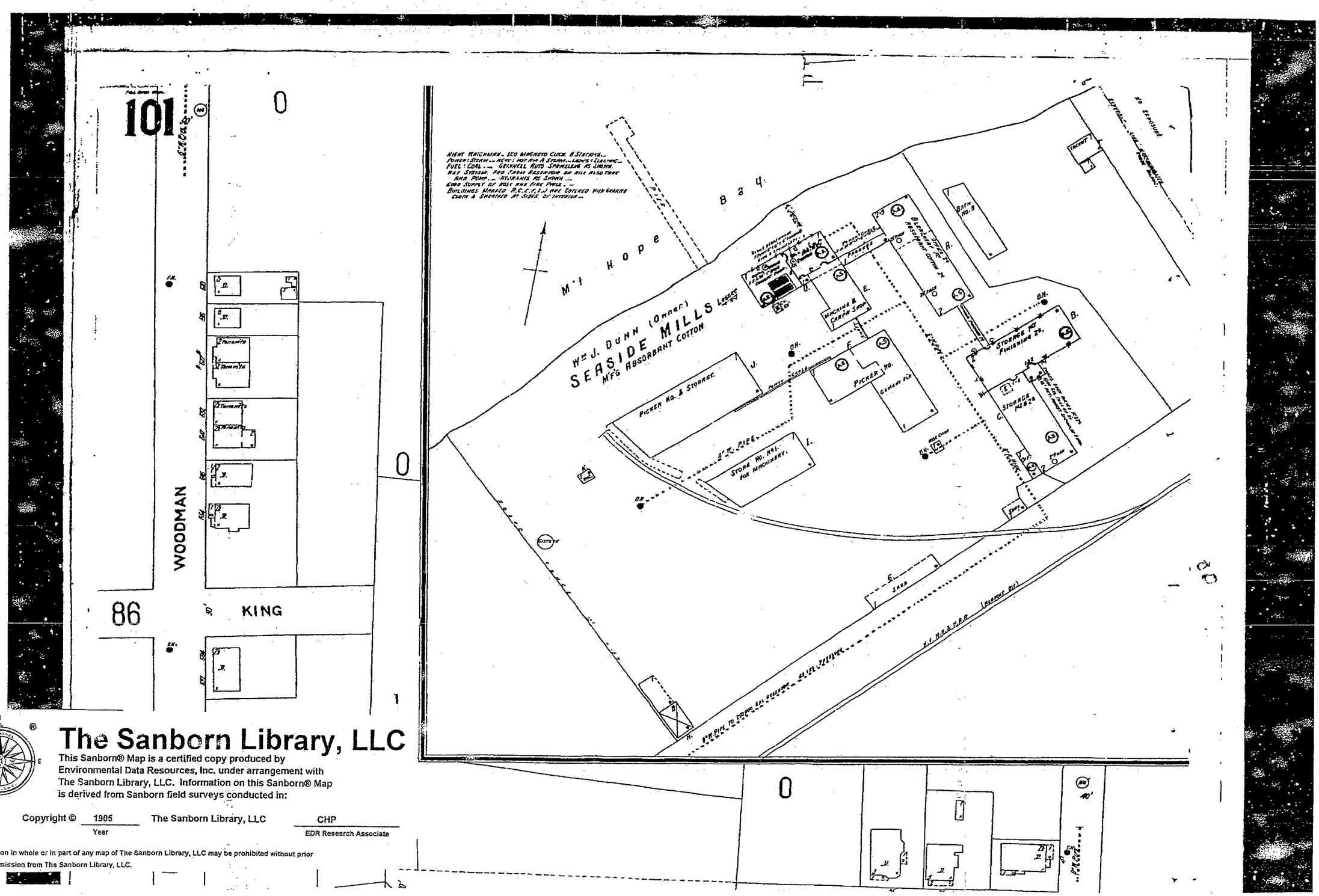
SIDING

4" W.P.

DRIVEWAY

PASSAGE

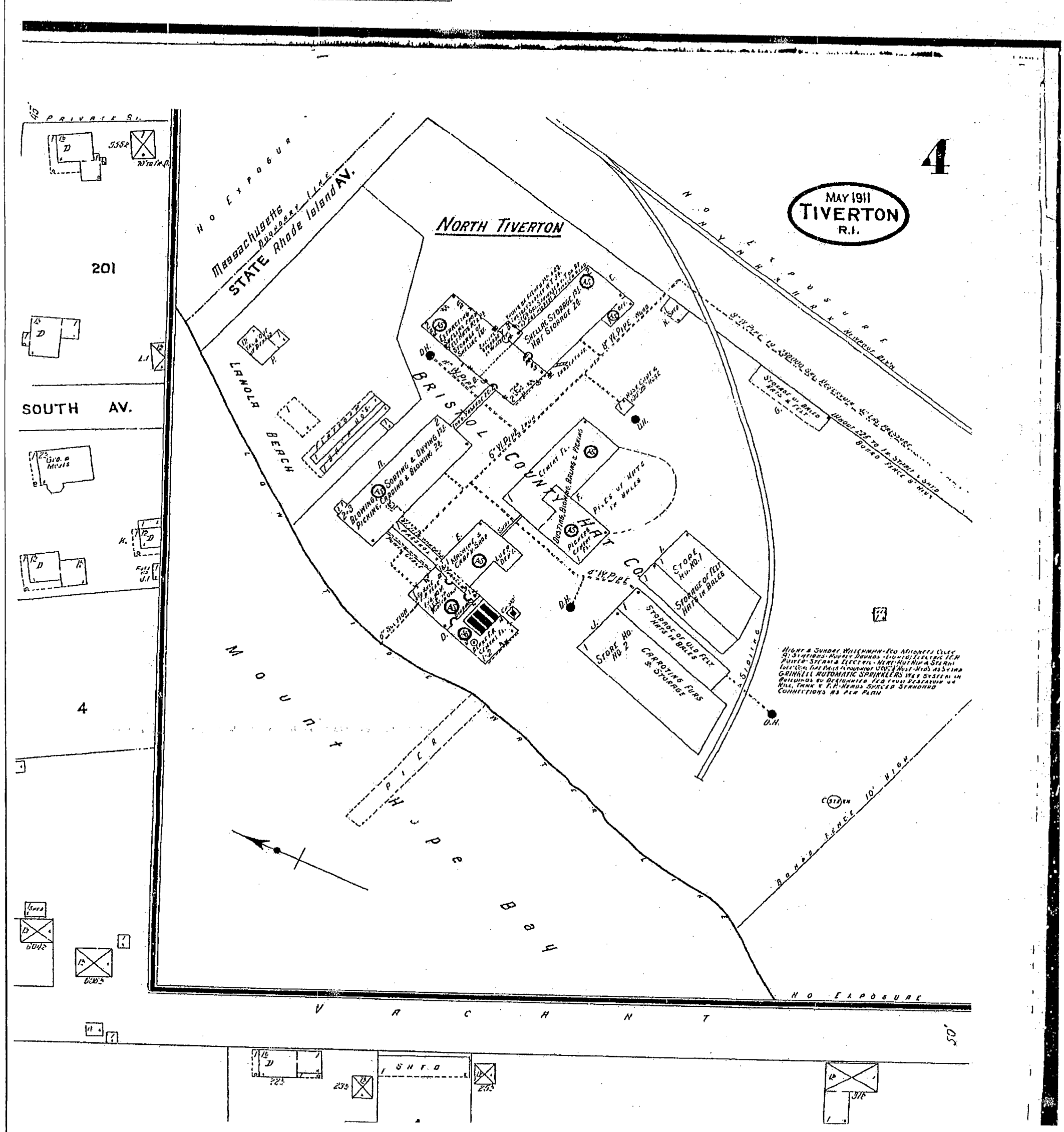
Vacant



The Sanborn Library, LLC

This Sanborn® Map is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn® Map is derived from Sanborn field surveys conducted in:

Copyright © 1905 (Year) The Sanborn Library, LLC CHP (EDR Research Associate)



Appendix E – FirstSearch Report

FirstSearch Technology Corporation

Environmental FirstSearch™ Report

TARGET PROPERTY:

TIVERTON RI 02878

Job Number: 71512

PREPARED FOR:

Vanasse Hangen Brustlin, Inc.

530 Broadway

Providence, RI 02909-1820

07-02-03

Tel: (781) 320-3720 *Fax: (781) 320-3715*

Environmental FirstSearch
Search Summary Report

Target Site:

TIVERTON RI 02878

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	05-08-03	1.00	0	0	0	0	0	0	0
CERCLIS	Y	06-09-03	0.50	0	0	0	0	-	0	0
NFRAP	Y	06-09-03	0.25	0	0	0	-	-	0	0
RCRA TSD	Y	12-09-02	0.50	0	0	0	0	-	0	0
RCRA COR	Y	12-09-02	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	12-09-02	0.25	2	1	2	-	-	2	7
RCRA NLR	N	12-09-02	0.25	-	-	-	-	-	-	-
ERNS	Y	12-31-02	0.15	0	1	0	-	-	3	4
NPDES	N	04-15-03	0.25	-	-	-	-	-	-	-
FINDS	N	07-16-98	0.25	-	-	-	-	-	-	-
TRIS	N	03-07-03	0.25	-	-	-	-	-	-	-
State Sites	Y	02-24-03	1.00	0	1	1	2	10	3	17
Spills-1990	Y	01-04-01	0.15	1	1	0	-	-	25	27
Spills-1980	N	NA	0.15	-	-	-	-	-	-	-
SWL	Y	01-24-01	0.50	0	0	0	0	-	1	1
Permits	N	NA	0.25	-	-	-	-	-	-	-
Other	N	NA	0.25	-	-	-	-	-	-	-
REG UST/AST	Y	08-30-02	0.15	0	0	1	-	-	1	2
Leaking UST	Y	02-24-03	0.50	0	0	0	2	-	2	4
State Wells	N	07-11-00	0.50	-	-	-	-	-	-	-
Aquifers	N	10-21-98	0.50	-	-	-	-	-	-	-
ACEC	N	03-15-00	0.50	-	-	-	-	-	-	-
Wetlands	N	11-20-00	0.50	-	-	-	-	-	-	-
Floodplains	N	05-13-98	0.50	-	-	-	-	-	-	-
Nuclear Permits	N	04-30-99	0.50	-	-	-	-	-	-	-
Historic/Landmark	N	09-01-02	0.50	-	-	-	-	-	-	-
Federal Land Use	N	06-17-98	0.50	-	-	-	-	-	-	-
Federal Wells	N	NA	0.50	-	-	-	-	-	-	-
Releases(Air/Water)	N	12-31-01	0.25	-	-	-	-	-	-	-
HMIRS	N	05-24-02	0.25	-	-	-	-	-	-	-
NCDB	N	03-28-02	0.25	-	-	-	-	-	-	-
PADS	N	03-01-03	0.25	-	-	-	-	-	-	-
Federal Other	N	NA	0.25	-	-	-	-	-	-	-
Misc	N	NA	0.25	-	-	-	-	-	-	-
Towers	N	08-16-01	0.25	-	-	-	-	-	-	-
Soils	N	03-18-97	0.25	-	-	-	-	-	-	-
Receptors	N	01-01-95	0.50	-	-	-	-	-	-	-
- TOTALS -				3	4	4	4	10	37	62

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

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Environmental FirstSearch
Site Information Report

Request Date:	07-02-03	**Search Type:**	AREA
Requestor Name:	Claude Masse	**Job Number:**	71512
Standard:	ASTM		

TARGET ADDRESS:

TIVERTON RI 02878

Demographics

Sites:	62	**Non-Geocoded:**	37	**Population:**	NA
Radon:	0.8 - 16 PCI/L				

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-71.193414	-71:11:36	**Easting:**	317405.958
Latitude:	41.671789	41:40:18	**Northing:**	4615447.688
			Zone:	19

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Topographical Maps	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

TOTAL: 62 **GEOCODED:** 25 **NON GEOCODED:** 37 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
21	SPILLS	121 STATE AVE 95-339	121 STATE AVE TIVERTON RI 02878	0.00 --	16
1	RCRAGN	AGUIARS AUTO RID982763591/SGN	34 STATE AVE TIVERTON RI 02878	0.00 --	1
5	RCRAGN	WHITEYS AUTO REPAIR RID019553502/SGN	110 BAY ST TIVERTON RI 02878	0.00 --	5
8	STATE	BAY STREET CONTAMINATED SOILS BSCS-HWM/ACTIVE	END OF BAY STREET TIVERTON RI 02878	0.02 SW	7
6	ERNS	H41714/FIX FAC	25 STATE AVE. TIVERTON RI 02878	0.06 NW	3
22	SPILLS	25 STATE AVE 96-465	25 STATE AVE TIVERTON RI 02878	0.06 NW	3
3	RCRAGN	ISLAND FUEL TERMINALS INC RID980521355/SGN	25 STATE AVE TIVERTON RI 02878	0.06 NW	3
23	UST	TIVERTON SENIOR CITIZEN CENTER 18479	CANONICUS STREET TIVERTON RI 02878	0.13 NE	18
20	STATE	WWTP 4-0015898/PRECLASSIFIED	1979 BAY ST FALL RIVER MA 02724	0.18 NE	15
2	RCRAGN	ALS AUTO BODY RIR000016303/SGN	3 BLAISDELL AVE TIVERTON RI 02878	0.21 SE	2
4	RCRAGN	TOWNE MOTOR SALES INC RI5000000455/SGN	109 MAIN RD TIVERTON RI 02878	0.25 NE	4
24	LUST	RICHARD AND DAVIS LUMBER COMPANY 3307-ST/I - INACTIVE	381 STATE AVENUE TIVERTON RI 02878	0.33 SE	17
17	STATE	SHADEN PROPERTY SHA-HWM/INACTIVE	8 MAIN ROAD TIVERTON RI 02878	0.36 SE	13
9	STATE	ENOS CITGO FMR 4-0014675/TIER 2	2608 SOUTH MAIN ST FALL RIVER MA 02724	0.38 SE	8
25	LUST	TIVERTON MOBIL 3319-LS/SRO - SOIL REMOVAL O	400 MAIN ROAD TIVERTON RI 02878	0.46 SE	19
10	STATE	FALL RIVER METALS 4-0006076/RAO	1611 BAY ST FALL RIVER MA 02724	0.52 NE	9
13	STATE	MOBIL STATION 4-0014702/TIER 2	2322 SOUTH MAIN ST FALL RIVER MA 02724	0.58 NE	12
18	STATE	SUNOCO SERVICE STATION 4-0000564/TIER 2	2322 SOUTH MAIN ST FALL RIVER MA 02724	0.58 NE	12
11	STATE	GETTY SERVICE STATION 4-0000786/TIER 2	2291 SOUTH MAIN ST FALL RIVER MA 02724	0.59 NE	10
19	STATE	WESTREX OEM PRODUCTS 4-0000891/TIER 2	51 PENN ST FALL RIVER MA 02724	0.66 NE	14
12	STATE	GOLD MEDAL BAKER 4-0011245/TIER 2	1397 BAY ST 21 PENN ST FALL RIVER MA 02724	0.70 NE	11

Environmental FirstSearch
Sites Summary Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

TOTAL: 62 **GEOCODED:** 25 **NON GEOCODED:** 37 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
7	STATE	ARGUS REALTY LIMITED PARTNERSHIP 4-0014540/TIER 1C	109 HOWE ST FALL RIVER MA 02724	0.82 NE	6
14	STATE	NO LOCATION AID 4-0011375/TIER 1B	109 HOWE ST FALL RIVER MA 02724	0.82 NE	6
15	STATE	NO LOCATION AID 4-0013573/TIER 2	109 HOWE ST FALL RIVER MA 02724	0.82 NE	6
16	STATE	REFLEK CORP 4-0015886/PRECLASSIFIED	109 HOWE ST FALL RIVER MA 02724	0.82 NE	6

Environmental FirstSearch
Sites Summary Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

TOTAL: 62 **GEOCODED:** 25 **NON GEOCODED:** 37 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
58	SPILLS	93-102	END OF ARRUDA LANE TIVERTON RI 02878	NON GC	
57	SPILLS	94-001	NANAQUACKET BRIDGE TIVERTON RI 99999	NON GC	
56	SPILLS	98-071	TIVERTON RI 02878	NON GC	
55	SPILLS	98-415	TIVERTON RI 02878	NON GC	
54	SPILLS	98-481	TIVERTON RI 02878	NON GC	
50	SPILLS	11252	A CONNELL ST (EMPTY LOT) TIVERTON RI	NON GC	
52	SPILLS	98-568	TIVERTON RI 02878	NON GC	
30	ERNS	548798/UNKNOWN	TIVERTON YAUCHT CLUB AT THE EN TIVERTON RI 02878	NON GC	
51	SPILLS	98-200	TIVERTON RI 02878	NON GC	
53	SPILLS	98-595	TIVERTON RI 02878	NON GC	
34	SPILLS	1188 AMIN ROAD 98-020	1188 AMIN ROAD TIVERTON RI 02878	NON GC	
35	SPILLS	20 COMMERCIAL WHARF 95-251	20 COMMERCIAL WHARF TIVERTON RI 02878	NON GC	
31	STATE	BEARS DEN AUTO BODY BDA-HWM/INACTIVE	BEARS DEN ROAD TIVERTON RI 02878	NON GC	
36	SPILLS	CRANDALL ROAD 95-338	CRANDALL ROAD TIVERTON RI 02878	NON GC	
37	SPILLS	END OF JACK S ISLAND ROAD 97-159	END OF JACK S ISLAND ROAD TIVERTON RI 02878	NON GC	
38	SPILLS	FIR AVE 00-170	FIR AVE TIVERTON RI 02878	NON GC	
39	SPILLS	FISH HILL RD 97-339	FISH HILL RD TIVERTON RI 02878	NON GC	
26	RCRAGN	GULF OIL CORP RID000791459/SGN	FOOT OF STATE ST TIVERTON RI 02878	NON GC	
61	LUST	LEAKING TANKS ADMINISTRATION ADM-LS	LEAKING TANKS ADMINISTRATION UNKNOWN RI 02878	NON GC	
40	SPILLS	MANCHESTER SEAFOOD 95-039	MANCHESTER SEAFOOD TIVERTON RI 02878	NON GC	

Environmental FirstSearch
Sites Summary Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

TOTAL: 62 **GEOCODED:** 25 **NON GEOCODED:** 37 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
41	SPILLS	MONTGOMERY 99-425	MONTGOMERY TIVERTON RI 02878	NON GC	
42	SPILLS	NARROW LANE 98-201	NARROW LANE TIVERTON RI 02878	NON GC	
62	LUST	NORTHEAST PETROLEUM 3305-LS/I - INACTIVE	995 MAIN ROAD TIVERTON RI 02878	NON GC	
32	STATE	NORTHEAST PETROLEUM NEP-HWM/INACTIVE	995 MAIN ROAD TIVERTON RI 02878	NON GC	
28	ERNS	PD HUMPHREY FUEL OIL 588893/UNKNOWN	UNKNOWN TIVERTON RI 02878	NON GC	
43	SPILLS	POLE 249 95-316	NANNAQUAKET ROAD TIVERTON RI 02878	NON GC	
60	UST	RAPOSA RESIDENCE RIUS-0802-38	10 ISLAND DR TIVERTON RI	NON GC	
29	ERNS	RICHARD & DAVIS LUMBER YARD 425078/UNDERGROUND STORAGE	SWAMP LAND NEAR COOK POND TIVERTON RI 02878	NON GC	
44	SPILLS	RIVERSIDE DRIVE 97-512	RIVERSIDE DRIVE TIVERTON RI 02878	NON GC	
45	SPILLS	SEAPOWET ROAD 96-428	SEAPOWET ROAD TIVERTON RI 02878	NON GC	
46	SPILLS	SEAPOWETT AVE 95-201	SEAPOWETT AVE TIVERTON RI 02878	NON GC	
47	SPILLS	SHUN PIKE 99-478	SHUN PIKE TIVERTON RI 02878	NON GC	
48	SPILLS	STATE ST 97-162	STATE ST TIVERTON RI 02878	NON GC	
33	STATE	TIVERTON BARRELS TIB-HWM/INACTIVE	LAFAYETTE ROAD TIVERTON RI 02878	NON GC	
27	RCRAGN	TIVERTON POWER ASSOCIATES RIR000500215/LGN	304 PROGRESS RD TIVERTON RI 02878	NON GC	
59	SWL	TIVERTON SANITARY LANDFILL RISW-7/ACTIVE	3532 MAIN ROAD TIVERTON RI 02878	NON GC	
49	SPILLS	TOWN LANDFILL 96-361	511 PIPPIN ORCHARD TIVERTON RI 02878	NON GC	

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 21 **DIST/DIR:** 0.00 -- **MAP ID:** 16

NAME: 121 STATE AVE
ADDRESS: 121 STATE AVE
TIVERTON RI 02878
CONTACT: J BALL

REV: 4/10/00
ID1: 95-339
ID2:
STATUS:
PHONE:

SPILL DATE: 07-25-95
STAFF: J BALL
SPILL NOTIFIER: ANONYMOUS

MATERIAL SPILLED: CRANKCASE OIL
SPILL AMOUNT REPORTED: 1-2 GALLONS
INCIDENT: IN ROAD
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

RCRA GENERATOR SITE

SEARCH ID: 1 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: AGUIARS AUTO
ADDRESS: 34 STATE AVE
TIVERTON RI 02878
CONTACT:

REV: 12/9/02
ID1: RID982763591
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

RCRA GENERATOR SITE

SEARCH ID: 5 **DIST/DIR:** 0.00 -- **MAP ID:** 5

NAME: WHITEYS AUTO REPAIR
ADDRESS: 110 BAY ST
TIVERTON RI 02878
CONTACT: CANUEL DONALD

REV: 3/11/02
ID1: RID019553502
ID2:
STATUS: SGN
PHONE: 4016246211

SITE INFORMATION

CONTACT INFORMATION: CANUEL DONALD

110 BAY ST
TIVERTON RI 02878

PHONE: 4016246211

UNIVERSE NAME:

SGN: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

7538 - SERVICES - GENERAL AUTOMOTIVE REPAIR SHOPS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 8 **DIST/DIR:** 0.02 SW **MAP ID:** 7

NAME: BAY STREET CONTAMINATED SOILS
ADDRESS: END OF BAY STREET
TIVERTON RI
CONTACT:

REV: 2/24/03
ID1: BSCS-HWM
ID2:
STATUS: ACTIVE
PHONE:

SITE INFORMATION

PROJECT DATE: 09/09/02

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 6 **DIST/DIR:** 0.06 NW **MAP ID:** 3

NAME:
ADDRESS: 25 STATE AVE.
TIVERTON RI 02878
CONTACT:

REV:
ID1: H41714
ID2:
STATUS: FIX FAC
PHONE: 401-625-1183

CERCLIS (Y/N):

MAT: SULPHURIC ACID ODOR **QUANT:** 1.00 UNKNOWN

LOCATION: TILLILESON COMPLEX, 25 STATE AVE.
CITY: TIVERTON RI 02878 **REPORTED:** 19940919

SOURCE: FIX FAC **MEDIUM:** AIR

CAUSE: UNKNOWN
2 WEEKS AGO THERE WAS A STRONG ODOR OF SULPHURIC ACID

ACT: REPORTER SHUT HIS WINDOWS IN THE HOUSE.
BY: FALL RIVER POLICE DEPT. CONSERVATION DEP

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 22 **DIST/DIR:** 0.06 NW **MAP ID:** 3

NAME: 25 STATE AVE
ADDRESS: 25 STATE AVE
TIVERTON RI 02878
CONTACT: K GILLEN

REV: 4/10/00
ID1: 96-465
ID2:
STATUS:
PHONE:

SPILL DATE: 11-11-96
STAFF: K GILLEN
SPILL NOTIFIER:

MATERIAL SPILLED:
SPILL AMOUNT REPORTED:
INCIDENT:
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

RCRA GENERATOR SITE

SEARCH ID: 3 **DIST/DIR:** 0.06 NW **MAP ID:** 3

NAME: ISLAND FUEL TERMINALS INC
ADDRESS: 25 STATE AVE
TIVERTON RI 02878
CONTACT:

REV: 12/9/02
ID1: RID980521355
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

5171 - WHOLESALE TRADE - PETROLEUM BULK STATIONS AND TERM

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 23 **DIST/DIR:** 0.13 NE **MAP ID:** 18

NAME:	TIVERTON SENIOR CITIZEN CENTER	**REV:**	8/01/02
ADDRESS:	CANONICUS STREET	**ID1:**	18479
	TIVERTON RI 02878	**ID2:**	
		STATUS:	
CONTACT:		**PHONE:**	

SITE INFORMATION

TOTAL NUMBER OF TANKS: 1

TANK ID:	1
DATE INSTALLED:	04-25-01
STATUS:	PERMANENTLY CLOSED
CAPACITY (GAL):	2,000
PRODUCT STORED:	HEATING OIL NO. 2

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 20 **DIST/DIR:** 0.18 NE **MAP ID:** 15

NAME: WWTP
ADDRESS: 1979 BAY ST
FALL_RIVER MA
CONTACT:

REV: 3/26/01
ID1: 4-0015898
ID2:
STATUS: PRECLASSIFIED
PHONE:

SITE INFORMATION

CATEGORY: 120 DY
DATE: 11/22/00
PHASE: NO PHASE

21E STATUS: PRECLASSIFIED
21E DATE: 11/22/00
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE:
SOURCE:
SITE DESCRIPTION:

CHEMICALS

UNKNOWN CHEMICAL OF TYPE - OIL 3000 PPM

SITE ACTIONS

ACT DATE: 03/14/2001
ACT USE LIMITATION:
LSP: BRIAN KLINGLER
ACT STATUS: WRITTEN PLAN RECEIVED
ACT TYPE: RAM: RELEASE ABATEMENT MEASURE
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

RCRA GENERATOR SITE

SEARCH ID: 2 **DIST/DIR:** 0.21 SE **MAP ID:** 2

NAME: ALS AUTO BODY
ADDRESS: 3 BLAISDELL AVE
TIVERTON RI 02878
CONTACT:

REV: 12/9/02
ID1: RIR000016303
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

RCRA GENERATOR SITE

SEARCH ID: 4 **DIST/DIR:** 0.25 NE **MAP ID:** 4

NAME: TOWNE MOTOR SALES INC
ADDRESS: 109 MAIN RD
TIVERTON RI 02878
CONTACT:

REV: 12/9/02
ID1: RI5000000455
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 24 **DIST/DIR:** 0.33 SE **MAP ID:** 17

NAME: RICHARD AND DAVIS LUMBER COMPANY
ADDRESS: 381 STATE AVENUE
TIVERTON RI
CONTACT:

REV: 2/24/03
ID1: 3307-ST
ID2:
STATUS: I - INACTIVE
PHONE:

PROJECT DATE: 12/14/1994 0:00:00

STATE SITE

SEARCH ID: 17 **DIST/DIR:** 0.36 SE **MAP ID:** 13

NAME: SHADEN PROPERTY
ADDRESS: 8 MAIN ROAD
TIVERTON RI 02878
CONTACT:

REV: 2/24/03
ID1: SHA-HWM
ID2:
STATUS: INACTIVE
PHONE:

SITE INFORMATION

PROJECT DATE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 9 **DIST/DIR:** 0.38 SE **MAP ID:** 8

NAME: ENOS CITGO FMR
ADDRESS: 2608 SOUTH MAIN ST
FALL_RIVER MA
CONTACT:

REV: 6/19/02
ID1: 4-0014675
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

CATEGORY: 72 HR
DATE: 4/16/1999
PHASE: PHASE II
21E STATUS: TIER 2
21E DATE: 4/14/2000
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE: COMMERCIAL,
SOURCE: UST;
SITE DESCRIPTION:

CHEMICALS

GASOLINE 200 PPM

SITE ACTIONS

ACT DATE: 04/19/2000
ACT USE LIMITATION:
LSP: TOIVO LAMMINEN
ACT STATUS: LEGAL NOTICE PUBLISHED
ACT TYPE: TCLASS: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 04/14/2000
ACT USE LIMITATION:
LSP: TOIVO LAMMINEN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASEI: PHASE I
RAO TYPE:

ACT DATE: 04/16/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 9 **DIST/DIR:** 0.38 SE **MAP ID:** 8

NAME: ENOS CITGO FMR
ADDRESS: 2608 SOUTH MAIN ST
FALL_RIVER MA
CONTACT:

REV: 6/19/02
ID1: 4-0014675
ID2:
STATUS: TIER 2
PHONE:

ACT DATE: 02/14/2001
ACT USE LIMITATION:
LSP: TOIVO LAMMINEN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: IRA: IMMEDIATE RESPONSE ACTION
RAO TYPE:

ACT DATE: 06/15/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE NOTIFICATION
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 25 **DIST/DIR:** 0.46 SE **MAP ID:** 19

NAME:	TIVERTON MOBIL	**REV:**	2/24/03
ADDRESS:	400 MAIN ROAD	**ID1:**	3319-LS
	TIVERTON RI	**ID2:**	
		STATUS:	SRO - SOIL REMOVAL ONLY
CONTACT:		**PHONE:**	

PROJECT DATE: 12/4/1998 0:00:00

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 10 **DIST/DIR:** 0.52 NE **MAP ID:** 9

NAME: FALL RIVER METALS
ADDRESS: 1611 BAY ST
FALL_RIVER MA
CONTACT:

REV: 1/29/01
ID1: 4-0006076
ID2:
STATUS: RAO
PHONE:

SITE INFORMATION

LTBI:
DELETED:
CONFIRMED:
REMOVED:

CATEGORY:
DATE:
PHASE: NO PHASE
21E STATUS: RAO
21E DATE: 7/25/94
HAZMAT TYPE: OIL

RAO CLASS: A1 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN REDUCED TO BACKROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED

LOCATION TYPE:
SOURCE:
SITE DESCRIPTION:

SITE ACTIONS

TS DATE: 19940725 00:00:00
AUL RESTRICTION: NON
LSP: JAMES BORREBACH
RA STATUS:
RAS TYPE: RAO: RESPONSE ACTION OUTCOME
RAO CLASS: A1 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS BEEN REDUCED TO BACKROUND OR A THREAT OF A RELEASE HAS BEEN ELIMINATED

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 13 **DIST/DIR:** 0.58 NE **MAP ID:** 12

NAME: MOBIL STATION
ADDRESS: 2322 SOUTH MAIN ST
FALL_RIVER MA
CONTACT:

REV: 4/25/03
ID1: 4-0014702
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

CATEGORY: 72 HR
DATE: 5/5/1999
PHASE: PHASE IV
21E STATUS: TIER 2
21E DATE: 11/2/2000
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE: COMMERCIAL,
SOURCE: UST;
SITE DESCRIPTION:

CHEMICALS

GASOLINE 1000 GAL

SITE ACTIONS

ACT DATE: 11/02/2000
ACT USE LIMITATION:
LSP: LELAND FIGGINS
ACT STATUS: TIER 2 CLASSIFICATION
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 02/28/2003
ACT USE LIMITATION:
LSP: LELAND FIGGINS
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 2
RAO TYPE:

ACT DATE: 01/03/2003
ACT USE LIMITATION:
LSP: LELAND FIGGINS
ACT STATUS: TECHNICAL SCREEN AUDIT
ACT TYPE: IMMEDIATE RESPONSE ACTION
RAO TYPE:

- Continued on next page -

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 13 **DIST/DIR:** 0.58 NE **MAP ID:** 12

NAME: MOBIL STATION
ADDRESS: 2322 SOUTH MAIN ST
FALL_RIVER MA
CONTACT:

REV: 4/25/03
ID1: 4-0014702
ID2:
STATUS: TIER 2
PHONE:

ACT DATE: 05/05/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

ACT DATE: 05/21/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE NOTIFICATION
RAO TYPE:

ACT DATE: 02/28/2003
ACT USE LIMITATION:
LSP: LELAND FIGGINS
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 3
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 18 **DIST/DIR:** 0.58 NE **MAP ID:** 12

NAME: SUNOCO SERVICE STATION
ADDRESS: 2322 SOUTH MAIN ST
FALL_RIVER MA 02720
CONTACT:

REV: 4/25/03
ID1: 4-0000564
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

LTBI: 10/15/1988
DELETED:
CONFIRMED: 10/15/1989
REMOVED:

CATEGORY: NONE
DATE: 10/15/1988
PHASE: PHASE IV
21E STATUS: TIER 2
21E DATE: 8/2/1995
HAZMAT TYPE:

RAO CLASS:

LOCATION TYPE:
SOURCE:
SITE DESCRIPTION:

CHEMICALS

UNKNOWN CHEMICAL OF UNKNOWN TYPE

SITE ACTIONS

TS DATE: 8/11/1997
AUL RESTRICTION:
LSP: JEFFREY HARDIN
RA STATUS: COMPLETION STATEMENT RECEIVED
RAS TYPE: PHASEIII
RAO CLASS:

TS DATE: 8/2/1995
AUL RESTRICTION:
LSP: JEFFREY HARDIN
RA STATUS:
RAS TYPE: TIER CLASSIFICATION
RAO CLASS:

TS DATE: 8/11/1997
AUL RESTRICTION:
LSP: JEFFREY HARDIN
RA STATUS: COMPLETION STATEMENT RECEIVED

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 18 **DIST/DIR:** 0.58 NE **MAP ID:** 12

NAME: SUNOCO SERVICE STATION
ADDRESS: 2322 SOUTH MAIN ST
FALL_RIVER MA 02720
CONTACT:

REV: 4/25/03
ID1: 4-0000564
ID2:
STATUS: TIER 2
PHONE:

RAS TYPE: PHASEII
RAO CLASS:

TS DATE: 8/1/1995
AUL RESTRICTION:
LSP: JEFFREY HARDIN
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: LSP-FA
RAO CLASS:

ACT DATE: 10/15/1988
ACT USE LIMITATION:
LSP:
ACT STATUS: VALID TRANSITION SITE
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

ACT DATE: 08/11/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 2
RAO TYPE:

ACT DATE: 08/02/1995
ACT USE LIMITATION:
LSP:
ACT STATUS: TIER 2 CLASSIFICATION
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 08/11/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 3
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 11 **DIST/DIR:** 0.59 NE **MAP ID:** 10

NAME: GETTY SERVICE STATION
ADDRESS: 2291 SOUTH MAIN ST
FALL_RIVER MA
CONTACT:

REV: 4/25/03
ID1: 4-0000786
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

LTBI: 10/15/1989
DELETED:
CONFIRMED: 4/15/1990
REMOVED:

CATEGORY: NONE
DATE: 10/15/1989
PHASE:
21E STATUS: TIER 2
21E DATE: 7/23/1999
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE: COMMERCIAL, GASSTATION, FORMER,
SOURCE: UST; UNKNOWN;
SITE DESCRIPTION: FORMER; GAS STATION; UNKNOWN AS TO WHAT IS CONTAINED IN;

OTHER CONTAMINATION:
OTHER RELEASES: POTENTIAL RELEASE
OTHER PROBLEMS: POTENTIAL SOIL RELEASE
OTHER TYPE OF SITE:

CHEMICALS

PETROLEUM BASED OIL

SITE ACTIONS

TS DATE: 7/23/1999
AUL RESTRICTION:
LSP: LAWRENCE LESSARD
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TIER CLASSIFICATION
RAO CLASS:

TS DATE: 3/13/1996
AUL RESTRICTION: NOT
LSP: THOMAS QUIGLEY
RA STATUS: RAO STATEMENT RECEIVED
RAS TYPE: RESPONSE ACTION OUTCOME - RAO
RAO CLASS: A3 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKROUND AND AN ACTIVITY AND USE LIMITATION (AUL) HAS BEEN IMPLEMENTED

- Continued on next page -

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 11 **DIST/DIR:** 0.59 NE **MAP ID:** 10

NAME: GETTY SERVICE STATION
ADDRESS: 2291 SOUTH MAIN ST
FALL_RIVER MA
CONTACT:

REV: 4/25/03
ID1: 4-0000786
ID2:
STATUS: TIER 2
PHONE:

TS DATE: 12/21/1995
AUL RESTRICTION:
LSP: THOMAS QUIGLEY
RA STATUS: WRITTEN PLAN RECEIVED
RAS TYPE: RELEASE ABATEMENT MEASURE
RAO CLASS:

TS DATE: 3/13/1996
AUL RESTRICTION:
LSP: THOMAS QUIGLEY
RA STATUS: COMPLETION STATEMENT RECEIVED
RAS TYPE: RELEASE ABATEMENT MEASURE
RAO CLASS:

TS DATE: 10/10/1994
AUL RESTRICTION:
LSP: THOMAS QUIGLEY
RA STATUS:
RAS TYPE: TS-ACCEPT
RAO CLASS:

TS DATE: 1/31/2000
AUL RESTRICTION:
LSP: LAWRENCE LESSARD
RA STATUS: WRITTEN PLAN RECEIVED
RAS TYPE: RELEASE ABATEMENT MEASURE
RAO CLASS:

ACT DATE: 08/13/2002
ACT USE LIMITATION:
LSP: LAWRENCE LESSARD
ACT STATUS: TECHNICAL SCREEN AUDIT
ACT TYPE: ACTIVITY AND USE LIMITATION
RAO TYPE:

ACT DATE: 03/13/1996
ACT USE LIMITATION:
LSP:
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: RELEASE ABATEMENT MEASURE
RAO TYPE:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 11 **DIST/DIR:** 0.59 NE **MAP ID:** 10

NAME: GETTY SERVICE STATION
ADDRESS: 2291 SOUTH MAIN ST
FALL_RIVER MA
CONTACT:

REV: 4/25/03
ID1: 4-0000786
ID2:
STATUS: TIER 2
PHONE:

ACT DATE: 10/15/1989
ACT USE LIMITATION:
LSP:
ACT STATUS: VALID TRANSITION SITE
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

ACT DATE: 07/23/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: TIER 2 CLASSIFICATION
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 06/04/2001
ACT USE LIMITATION:
LSP: LAWRENCE LESSARD
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: RELEASE ABATEMENT MEASURE
RAO TYPE:

ACT DATE: 08/13/2002
ACT USE LIMITATION: NOTICE
LSP: LAWRENCE LESSARD
ACT STATUS: TECHNICAL SCREEN AUDIT
ACT TYPE: RESPONSE ACTION OUTCOME - RAO
RAO TYPE: A3 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKROUND AND AN ACTIVITY AND USE LIMITATION (AUL) HAS BEEN IMPLEMENTED

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 19 **DIST/DIR:** 0.66 NE **MAP ID:** 14

NAME: WESTREX OEM PRODUCTS
ADDRESS: 51 PENN ST
FALL_RIVER MA 02720
CONTACT:

REV: 4/25/03
ID1: 4-0000891
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

LTBI: 10/15/1990
DELETED:

CONFIRMED: 4/15/1992
REMOVED:

CATEGORY: NONE
DATE: 7/18/1990
PHASE:

21E STATUS: TIER 2
21E DATE: 2/7/2002
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE: TANK FARM, FORMER,
SOURCE:
SITE DESCRIPTION: CHLORINATED SOLVENTS PRESENT; FORMER; TANK FARM SITE; V.O.C. S PRESENT; RELEASE TO SOIL; GROUNDWATER RELEASE;

OTHER CONTAMINATION:
OTHER RELEASES:
OTHER PROBLEMS:
OTHER TYPE OF SITE:

CHEMICALS

UNKNOWN CHEMICAL OF TYPE - OIL

SITE ACTIONS

TS DATE: 11/1/1996
AUL RESTRICTION: NOT
LSP: THOMAS JORDAN
RA STATUS:
RAS TYPE: RESPONSE ACTION OUTCOME - RAO
RAO CLASS: A3 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKROUND AND AN ACTIVITY AND USE LIMITATION (AUL) HAS BEEN IMPLEMENTED

ACT DATE: 10/10/1996
ACT USE LIMITATION:
LSP:
ACT STATUS: TRANSMITTAL RECEIVED
ACT TYPE: ACTIVITY AND USE LIMITATION

- Continued on next page -

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 19 **DIST/DIR:** 0.66 NE **MAP ID:** 14

NAME: WESTREX OEM PRODUCTS
ADDRESS: 51 PENN ST
FALL_RIVER MA 02720
CONTACT:

REV: 4/25/03
ID1: 4-0000891
ID2:
STATUS: TIER 2
PHONE:

RAO TYPE:

ACT DATE: 05/31/2001
ACT USE LIMITATION: NOTICE
LSP:
ACT STATUS: SUBMITTAL RETRACTED
ACT TYPE: RESPONSE ACTION OUTCOME - RAO
RAO TYPE: A3 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKROUND AND AN ACTIVITY AND USE LIMITATION (AUL) HAS BEEN IMPLEMENTED

ACT DATE: 08/01/2002
ACT USE LIMITATION:
LSP: RICHARD STROMBERG
ACT STATUS: TIER 2 EXTENSION
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 05/31/2001
ACT USE LIMITATION:
LSP: RICHARD STROMBERG
ACT STATUS: ACTION STATUS OR AUL TERMINATED
ACT TYPE: ACTIVITY AND USE LIMITATION
RAO TYPE:

ACT DATE: 05/31/2001
ACT USE LIMITATION:
LSP: RICHARD STROMBERG
ACT STATUS: SCOPE OF WORK RECEIVED
ACT TYPE: PHASE 2
RAO TYPE:

ACT DATE: 09/03/2002
ACT USE LIMITATION:
LSP: THEODORE KAEGAEL
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: RELEASE ABATEMENT MEASURE
RAO TYPE:

ACT DATE: 02/03/2003
ACT USE LIMITATION:
LSP: THEODORE KAEGAEL
ACT STATUS: FEE NOT REQUIRED-FEE REFUNDED-FMCRA USE ONLY
ACT TYPE: DOWNGRADIENT PROPERTY STATUS
RAO TYPE:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878

JOB: 71512

STATE SITE

SEARCH ID: 19 **DIST/DIR:** 0.66 NE **MAP ID:** 14

NAME: WESTREX OEM PRODUCTS
ADDRESS: 51 PENN ST
FALL_RIVER MA 02720
CONTACT:

REV: 4/25/03
ID1: 4-0000891
ID2:
STATUS: TIER 2
PHONE:

ACT DATE: 07/18/1990
ACT USE LIMITATION:
LSP:
ACT STATUS: VALID TRANSITION SITE
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 12 **DIST/DIR:** 0.70 NE **MAP ID:** 11

NAME: GOLD MEDAL BAKER
ADDRESS: 1397 BAY ST 21 PENN ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0011245
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

LTBI:
DELETED:
CONFIRMED:
REMOVED:

CATEGORY: 72 HR
DATE: 3/31/1995
PHASE: PHASE V
21E STATUS: TIER 2
21E DATE: 3/29/1996
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE: INDUSTRIAL,
SOURCE: UST;
SITE DESCRIPTION:

CHEMICALS

GASOLINE
GASOLINE 100 PPMV

SITE ACTIONS

TS DATE: 3/29/1996
AUL RESTRICTION:
LSP: TOIVO LAMMINEN
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TIER CLASSIFICATION
RAO CLASS:

TS DATE: 6/23/1997
AUL RESTRICTION:
LSP:
RA STATUS: LINKED TO A TRANSITION SITE - OBSOLETE STATUS
RAS TYPE: FEND
RAO CLASS:

ACT DATE: 05/17/1995
ACT USE LIMITATION:
LSP:

- Continued on next page -

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 12 **DIST/DIR:** 0.70 NE **MAP ID:** 11

NAME: GOLD MEDAL BAKER
ADDRESS: 1397 BAY ST 21 PENN ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0011245
ID2:
STATUS: TIER 2
PHONE:

ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE NOTIFICATION
RAO TYPE:

ACT DATE: 03/31/1995
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

ACT DATE: 08/14/1995
ACT USE LIMITATION:
LSP: WILLIAM MITCHELL
ACT STATUS: STATUS REPORT RECEIVED
ACT TYPE: IMMEDIATE RESPONSE ACTION
RAO TYPE:

ACT DATE: 03/29/1996
ACT USE LIMITATION:
LSP: TOIVO LAMMINEN
ACT STATUS: TIER 2 CLASSIFICATION
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 05/10/1999
ACT USE LIMITATION:
LSP: STEVEN RUMBA
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 4
RAO TYPE:

ACT DATE: 03/29/1996
ACT USE LIMITATION:
LSP: TOIVO LAMMINEN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 1
RAO TYPE:

ACT DATE: 04/03/1998
ACT USE LIMITATION:
LSP: TOIVO LAMMINEN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 3

- Continued on next page -

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 12 **DIST/DIR:** 0.70 NE **MAP ID:** 11

NAME: GOLD MEDAL BAKER
ADDRESS: 1397 BAY ST 21 PENN ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0011245
ID2:
STATUS: TIER 2
PHONE:

RAO TYPE:

ACT DATE: 04/03/1998
ACT USE LIMITATION:
LSP: TOIVO LAMMINEN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 2
RAO TYPE:

ACT DATE: 11/06/2002
ACT USE LIMITATION:
LSP: STEVEN RUMBA
ACT STATUS: INSPECTION AND MONITORING REPORT RECEIVED
ACT TYPE: PHASE 5
RAO TYPE:

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 7 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: ARGUS REALTY LIMITED PARTNERSHIP
ADDRESS: 109 HOWE ST
FALL_RIVER MA
CONTACT:

REV: 4/25/03
ID1: 4-0014540
ID2:
STATUS: TIER 1C
PHONE:

SITE INFORMATION

STATUS: TIER 1C - A site/release receiving a total NRS score less than 450 and equal to or greater than 350. A site/release receiving a total NRS score of less than 350, but which meets any of the Tier 1 Inclusionary Criteria specified in 310 CMR 40.0520(2)(a), is also classified a Tier 1C. These sites/releases also require a permit, but response actions may be performed under the supervision of an LPS without prior DEP approval.

CATEGORY: TWO HR
DATE: 2/16/1999
PHASE: PHASE III
21E STATUS: TIER 1C
21E DATE: 6/21/2000
HAZMAT TYPE: HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE: COMMERCIAL,
SOURCE: UNKNOWN;
SITE DESCRIPTION:

CHEMICALS

UNKNOWN CHEMICAL OF TYPE - HAZARDOUS MATERIAL

SITE ACTIONS

ACT DATE: 06/21/2000
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 1
RAO TYPE:

ACT DATE: 03/17/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE NOTIFICATION
RAO TYPE:

ACT DATE: 02/16/1999
ACT USE LIMITATION:
LSP: ANDREW BAKINOWSKI
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

- Continued on next page -

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 7 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: ARGUS REALTY LIMITED PARTNERSHIP
ADDRESS: 109 HOWE ST
FALL_RIVER MA
CONTACT:

REV: 4/25/03
ID1: 4-0014540
ID2:
STATUS: TIER 1C
PHONE:

ACT DATE: 02/24/2003
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: MODIFIED REVISED OR UPDATED PLAN RECEIVED
ACT TYPE: IMMEDIATE RESPONSE ACTION
RAO TYPE:

ACT DATE: 02/24/2003
ACT USE LIMITATION:
LSP: MATTHEW HACKMAN
ACT STATUS: NOTICE OF DELAY IN MEETING RA DEADLINE RECEIVED
ACT TYPE: PHASE 3
RAO TYPE:

ACT DATE: 02/24/2003
ACT USE LIMITATION:
LSP: MATTHEW HACKMAN
ACT STATUS: NOTICE OF DELAY IN MEETING RA DEADLINE RECEIVED
ACT TYPE: PHASE 4
RAO TYPE:

ACT DATE: 11/15/2002
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 2
RAO TYPE:

ACT DATE: 11/15/2000
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: PERMIT EFFECTIVE DATE
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 14 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: NO LOCATION AID
ADDRESS: 109 HOWE ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0011375
ID2:
STATUS: TIER 1B
PHONE:

SITE INFORMATION

STATUS: TIER 1B - A site/release receiving an NRS score less than 550 and equal to or greater than 450. These sites/releases also require a permit, but response actions may be performed under the supervision of a License Site Professional (LSP) without prior DEP approval.

LTBI:
DELETED:
CONFIRMED:
REMOVED:

CATEGORY: 120 DY
DATE: 5/15/1995
PHASE: PHASE IV
21E STATUS: TIER 1B
21E DATE: 2/7/2001
HAZMAT TYPE: HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE:
SOURCE: UNKNOWN;
SITE DESCRIPTION:

CHEMICALS

LEAD .041 MG/L
ETHENE, TRICHLORO- 19.5 MG/L
NICKEL 3.43 MG/L

SITE ACTIONS

TS DATE: 3/18/1998
AUL RESTRICTION:
LSP:
RA STATUS: LINKED TO A TRANSITION SITE - OBSOLETE STATUS
RAS TYPE: FEND
RAO CLASS:

TS DATE: 5/16/1997
AUL RESTRICTION:
LSP: JONATHAN TWINING
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TIER CLASSIFICATION
RAO CLASS:

ACT DATE: 03/18/2003
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT

- Continued on next page -

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 14 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: NO LOCATION AID
ADDRESS: 109 HOWE ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0011375
ID2:
STATUS: TIER 1B
PHONE:

ACT STATUS: STATUS REPORT RECEIVED
ACT TYPE: IMMEDIATE RESPONSE ACTION
RAO TYPE:

ACT DATE: 06/26/2001
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: PERMIT EFFECTIVE DATE
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 11/15/2002
ACT USE LIMITATION:
LSP: MATTHEW HACKMAN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 2
RAO TYPE:

ACT DATE: 05/15/1995
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE DISPOSITION
RAO TYPE:

ACT DATE: 05/16/1997
ACT USE LIMITATION:
LSP: JONATHAN TWINING
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 1
RAO TYPE:

ACT DATE: 02/03/2003
ACT USE LIMITATION:
LSP: JONATHAN TWINING
ACT STATUS: FEE NOT REQUIRED-FEE CREDITED-FMCRA USE ONLY
ACT TYPE: RELEASE ABATEMENT MEASURE
RAO TYPE:

ACT DATE: 06/10/1998
ACT USE LIMITATION:
LSP: JONATHAN TWINING
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 3

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 14 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: NO LOCATION AID
ADDRESS: 109 HOWE ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0011375
ID2:
STATUS: TIER 1B
PHONE:

RAO TYPE:

ACT DATE: 05/23/1995
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE NOTIFICATION
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 15 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: NO LOCATION AID
ADDRESS: 109 HOWE ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0013573
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

CATEGORY: 120 DY
DATE: 3/2/1998
PHASE: PHASE III
21E STATUS: TIER 2
21E DATE: 3/2/1999
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE:
SOURCE:
SITE DESCRIPTION:

CHEMICALS

UNKNOWN CHEMICAL OF UNKNOWN TYPE 1400 PPB
UNKNOWN CHEMICAL OF UNKNOWN TYPE 1200 PPB
FUEL OIL #6

SITE ACTIONS

ACT DATE: 05/25/2001
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: MODIFIED REVISED OR UPDATED PLAN RECEIVED
ACT TYPE: IMMEDIATE RESPONSE ACTION
RAO TYPE:

ACT DATE: 03/06/1998
ACT USE LIMITATION:
LSP: JONATHAN TWINING
ACT STATUS: FEE RECEIVED-FMCRA USE ONLY
ACT TYPE: RELEASE ABATEMENT MEASURE
RAO TYPE:

ACT DATE: 03/02/1999
ACT USE LIMITATION:
LSP: ANDREW BAKINOWSKI
ACT STATUS: TIER 2 CLASSIFICATION
ACT TYPE: TIER CLASSIFICATION
RAO TYPE:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878

JOB: 71512

STATE SITE

SEARCH ID: 15 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: NO LOCATION AID
ADDRESS: 109 HOWE ST
FALL_RIVER MA 02724
CONTACT:

REV: 4/25/03
ID1: 4-0013573
ID2:
STATUS: TIER 2
PHONE:

ACT DATE: 03/02/1998
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 21E
ACT TYPE: RELEASE NOTIFICATION
RAO TYPE:

ACT DATE: 11/15/2002
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 2
RAO TYPE:

ACT DATE: 03/02/1999
ACT USE LIMITATION:
LSP: ANDREW BAKINOWSKI
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 1
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 16 **DIST/DIR:** 0.82 NE **MAP ID:** 6

NAME: REFLEK CORP
ADDRESS: 109 HOWE ST
FALL_RIVER MA
CONTACT:

REV: 1/29/01
ID1: 4-0015886
ID2:
STATUS: PRECLASSIFIED
PHONE:

SITE INFORMATION

CATEGORY: 72 HR
DATE: 11/15/00
PHASE: NO PHASE
21E STATUS: RTN CLOSED
21E DATE: 2/7/01
HAZMAT TYPE: HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE: INDUSTRIAL, COMMERCIAL,
SOURCE: PIPE;
SITE DESCRIPTION:

SITE ACTIONS

ACT DATE: 02/07/2001
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: RELATED TO A TIER CLASSIFIED SITE
ACT TYPE: RAONR: RAO NOT REQUIRED
RAO TYPE:

ACT DATE: 12/29/2000
ACT USE LIMITATION:
LSP: KENNETH MCDERMOTT
ACT STATUS: WRITTEN PLAN RECEIVED
ACT TYPE: IRA: IMMEDIATE RESPONSE ACTION
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878

JOB: 71512

STATE SPILLS SITE

SEARCH ID: 58 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: END OF ARRUDA LANE
TIVERTON RI 02878

CONTACT: J LEO

REV: 4/10/00
ID1: 93-102
ID2:
STATUS:
PHONE:

SPILL DATE: 11-18-93
STAFF: J LEO

SPILL NOTIFIER: LUKE WALKER

MATERIAL SPILLED: ICE CREAM
SPILL AMOUNT REPORTED: 20000 GALLONS
INCIDENT: AT PIG FARM

SOURCE OF SPILL:

LUST?:
PCB LEVEL:

SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 57 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: NANAQUACKET BRIDGE
TIVERTON RI 02878

CONTACT: D SQUIRES

REV: 4/10/00
ID1: 94-001
ID2:
STATUS:
PHONE:

SPILL DATE: 01-04-94
STAFF: D SQUIRES

SPILL NOTIFIER: TIVERTON FIRE DEPT

MATERIAL SPILLED: FUEL
SPILL AMOUNT REPORTED: 25 GALLONS
INCIDENT:

SOURCE OF SPILL: FISHING VESSEL

LUST?:
PCB LEVEL:

SOIL CONTAMINATED?:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 56 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: TIVERTON RI 02878
CONTACT: J LEO

REV: 4/10/00
ID1: 98-071
ID2:
STATUS:
PHONE:

SPILL DATE: 02-06-98
STAFF: J LEO

SPILL NOTIFIER:

MATERIAL SPILLED: FLAMMABLE PAINT
SPILL AMOUNT REPORTED: 45 GALLON
INCIDENT: GET RID OF PAINT

SOURCE OF SPILL:

LUST?:
PCB LEVEL:

SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 55 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: TIVERTON RI 02878
CONTACT: T CAMPBELL

REV: 4/10/00
ID1: 98-415
ID2:
STATUS:
PHONE:

SPILL DATE: 07-24-98
STAFF: T CAMPBELL

SPILL NOTIFIER:

MATERIAL SPILLED: HYDRAULIC
SPILL AMOUNT REPORTED: -10 GALLON
INCIDENT: BROKEN

SOURCE OF SPILL: HYRDRAULIC LINE

LUST?:
PCB LEVEL:

SOIL CONTAMINATED?:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 54 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: TIVERTON RI 02878
CONTACT:
REV: 4/10/00
ID1: 98-481
ID2:
STATUS:
PHONE:

SPILL DATE: 09-09-98
STAFF:
SPILL NOTIFIER:

MATERIAL SPILLED: WASTE OIL PROPANE
SPILL AMOUNT REPORTED:
INCIDENT: LEAKING
SOURCE OF SPILL: CONTAINERS

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 50 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: A CONNELL ST (EMPTY LOT) TIVERTON RI
CONTACT:
REV: 1/04/01
ID1: 11252
ID2:
STATUS:
PHONE:

SITE INFORMATION

COMPLAINT DATE: 9/13/00
COMPLAINT NUMBER: 14563
INSPECTION DATE: 9/21/00
FOUNDED: Y
AMOUNT OF MATERIAL: 30 LBS

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 52 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: TIVERTON RI 02878
CONTACT:

REV: 4/10/00
ID1: 98-568
ID2:
STATUS:
PHONE:

SPILL DATE: 10-22-98
STAFF:

SPILL NOTIFIER:

MATERIAL SPILLED: HYDRAULIC OIL
SPILL AMOUNT REPORTED: 70 GALLONS
INCIDENT: SPILL

SOURCE OF SPILL:

LUST?:
PCB LEVEL:

SOIL CONTAMINATED?:

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 30 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: TIVERTON YAUCHT CLUB AT THE END OF THE PIER
TIVERTON RI 02878
CONTACT:

REV:
ID1: 548798
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: UNKNOWN MATERIAL **QUANT:** 0 UNKNOWN

LOCATION: TIVERTON YAUCHT CLUB AT THE END OF THE PIER
CITY: **REPORTED:** 08/22/97

SOURCE: UNKNOWN **MEDIUM:** WATER
CALLER REPORTS A SHEEN CONTAINING DOZENS OF FISHHEADS AND MAGGOTS CRAWLING FR
CAUSE: UNKNOWN
OM THE FISH

ACT: NONE
BY:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 51 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: TIVERTON RI 02878
CONTACT: J BALL

REV: 4/10/00
ID1: 98-200
ID2:
STATUS:
PHONE:

SPILL DATE: 04-20-98
STAFF: J BALL
SPILL NOTIFIER:

MATERIAL SPILLED: #2
SPILL AMOUNT REPORTED: 10-15 GALLON
INCIDENT: LEAKED
SOURCE OF SPILL: TANK

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 53 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: TIVERTON RI 02878
CONTACT:

REV: 4/10/00
ID1: 98-595
ID2:
STATUS:
PHONE:

SPILL DATE: 10-31-98
STAFF:
SPILL NOTIFIER:

MATERIAL SPILLED: GASOLINE
SPILL AMOUNT REPORTED: 55 GALLONS
INCIDENT: LEFT AT ACCIDENT
SOURCE OF SPILL: BARREL

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 34 **DIST/DIR:** NON GC **MAP ID:**

NAME: 1188 AMIN ROAD
ADDRESS: 1188 AMIN ROAD
TIVERTON RI 02878
CONTACT: J LEO

REV: 4/10/00
ID1: 98-020
ID2:
STATUS:
PHONE:

SPILL DATE: 01-19-98
STAFF: J LEO
SPILL NOTIFIER:

MATERIAL SPILLED: DIESEL OIL
SPILL AMOUNT REPORTED:
INCIDENT:
SOURCE OF SPILL: DRAIN IN BACKYARD

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 35 **DIST/DIR:** NON GC **MAP ID:**

NAME: 20 COMMERCIAL WHARF
ADDRESS: 20 COMMERCIAL WHARF
TIVERTON RI 02878
CONTACT: D SQUIRES

REV: 4/10/00
ID1: 95-251
ID2:
STATUS:
PHONE:

SPILL DATE: 06-08-95
STAFF: D SQUIRES
SPILL NOTIFIER: RELIABLE FUEL CO

MATERIAL SPILLED: DIESEL
SPILL AMOUNT REPORTED: 3 GALLONS
INCIDENT: FUELING
SOURCE OF SPILL: M/V CONSORTIUM

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SITE

SEARCH ID: 31 **DIST/DIR:** NON GC **MAP ID:**

NAME: BEARS DEN AUTO BODY
ADDRESS: BEARS DEN ROAD
TIVERTON RI 02878
CONTACT:

REV: 2/24/03
ID1: BDA-HWM
ID2:
STATUS: INACTIVE
PHONE:

SITE INFORMATION

PROJECT DATE:

STATE SPILLS SITE

SEARCH ID: 36 **DIST/DIR:** NON GC **MAP ID:**

NAME: CRANDALL ROAD
ADDRESS: CRANDALL ROAD
TIVERTON RI 02878
CONTACT: J BALL

REV: 4/10/00
ID1: 95-338
ID2:
STATUS:
PHONE:

SPILL DATE: 07-19-95
STAFF: J BALL

SPILL NOTIFIER: CARL DUMAS TIM BLD INSP

MATERIAL SPILLED: OIL
SPILL AMOUNT REPORTED:
INCIDENT: FEEDING HOUSES

SOURCE OF SPILL: WELL

LUST?:
PCB LEVEL:

SOIL CONTAMINATED?:

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 37 **DIST/DIR:** NON GC **MAP ID:**

NAME: END OF JACK S ISLAND ROAD
ADDRESS: END OF JACK S ISLAND ROAD
TIVERTON RI 02878
CONTACT: J LEO

REV: 4/10/00
ID1: 97-159
ID2:
STATUS:
PHONE:

SPILL DATE: 04-23-97
STAFF: J LEO
SPILL NOTIFIER:

MATERIAL SPILLED:
SPILL AMOUNT REPORTED:
INCIDENT:
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 38 **DIST/DIR:** NON GC **MAP ID:**

NAME: FIR AVE
ADDRESS: FIR AVE
TIVERTON RI 02878
CONTACT:

REV: 4/10/00
ID1: 00-170
ID2:
STATUS:
PHONE:

SPILL DATE: 03-29-00
STAFF:
SPILL NOTIFIER:

MATERIAL SPILLED: WASTE OIL
SPILL AMOUNT REPORTED:
INCIDENT: ILLEGAL DISPOSAL
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 39 **DIST/DIR:** NON GC **MAP ID:**

NAME: FISH HILL RD
ADDRESS: FISH HILL RD
TIVERTON RI 02878
CONTACT: JOHN P. LEO

REV: 4/10/00
ID1: 97-339
ID2:
STATUS:
PHONE:

SPILL DATE: 08/01/97
STAFF: JOHN P. LEO
SPILL NOTIFIER:

MATERIAL SPILLED: SODIUM ALUMINATE
SPILL AMOUNT REPORTED: 30 GALLONS
INCIDENT:
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

RCRA GENERATOR SITE

SEARCH ID: 26 **DIST/DIR:** NON GC **MAP ID:**

NAME: GULF OIL CORP
ADDRESS: FOOT OF STATE ST
TIVERTON RI 02878
CONTACT:

REV: 12/9/02
ID1: RID000791459
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

5171 - WHOLESALE TRADE - PETROLEUM BULK STATIONS AND TERM

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 61 **DIST/DIR:** NON GC **MAP ID:**

NAME: LEAKING TANKS ADMINISTRATION
ADDRESS: LEAKING TANKS ADMINISTRATION
UNKNOWN RI
CONTACT:

REV:
ID1: ADM-LS
ID2:
STATUS:
PHONE:

REPORT DATE:
MATERIAL:
LOW CAPACITY:
PRODUCT:

FED REG:
NUMBER OF TANKS:
HIGH CAPACITY:

TANK REMOVED:
TANK RELEASE:

UNCONTROLLED RELEASE:
PIPING RELEASE:

EMERGENCY:
OVERFILL RELEASE:

REMEDIATION: NA
REFERRED:
COMMENT:

COMPLETE:

STATE SPILLS SITE

SEARCH ID: 40 **DIST/DIR:** NON GC **MAP ID:**

NAME: MANCHESTER SEAFOOD
ADDRESS: MANCHESTER SEAFOOD
TIVERTON RI 02878
CONTACT: D SQUIRES

REV: 4/10/00
ID1: 95-039
ID2:
STATUS:
PHONE:

SPILL DATE: 02-02-95
STAFF: D SQUIRES

SPILL NOTIFIER: US COAST GUARD

MATERIAL SPILLED: DIESEL
SPILL AMOUNT REPORTED: 50-100 GALLONS
INCIDENT: SANK

SOURCE OF SPILL: VESSEL

LUST?:
PCB LEVEL:

SOIL CONTAMINATED?:

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 41 **DIST/DIR:** NON GC **MAP ID:**

NAME: MONTGOMERY
ADDRESS: MONTGOMERY
TIVERTON RI 02878
CONTACT:

REV: 4/10/00
ID1: 99-425
ID2:
STATUS:
PHONE:

SPILL DATE: 07/19/99
STAFF:
SPILL NOTIFIER:

MATERIAL SPILLED: WASTE OIL
SPILL AMOUNT REPORTED:
INCIDENT: DUMPING
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 42 **DIST/DIR:** NON GC **MAP ID:**

NAME: NARROW LANE
ADDRESS: NARROW LANE
TIVERTON RI 02878
CONTACT: J LEO

REV: 4/10/00
ID1: 98-201
ID2:
STATUS:
PHONE:

SPILL DATE: 04-22-98
STAFF: J LEO
SPILL NOTIFIER:

MATERIAL SPILLED: WASTE OIL
SPILL AMOUNT REPORTED: 55 GALLON
INCIDENT: ABANDONED
SOURCE OF SPILL: DRUM

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878

JOB: 71512

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 62 **DIST/DIR:** NON GC **MAP ID:**

NAME: NORTHEAST PETROLEUM
ADDRESS: 995 MAIN ROAD
TIVERTON RI
CONTACT:

REV: 2/24/03
ID1: 3305-LS
ID2:
STATUS: I - INACTIVE
PHONE:

PROJECT DATE: 8/1/1992 0:00:00

STATE SITE

SEARCH ID: 32 **DIST/DIR:** NON GC **MAP ID:**

NAME: NORTHEAST PETROLEUM
ADDRESS: 995 MAIN ROAD
TIVERTON RI 02878
CONTACT:

REV: 2/24/03
ID1: NEP-HWM
ID2:
STATUS: INACTIVE
PHONE:

SITE INFORMATION

PROJECT DATE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 28 **DIST/DIR:** NON GC **MAP ID:**

NAME: PD HUMPHREY FUEL OIL
ADDRESS: UNKNOWN
TIVERTON RI
CONTACT:

REV:
ID1: 588893
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: OIL, FUEL: NO. 2-D **QUANT:** 0.00 UNKNOWN

LOCATION: UNKNOWN
CITY: TIVERTON RI **REPORTED:** 08/04/98

SOURCE: UNKNOWN **MEDIUM:** WATER
FUEL TRANSFER SPILL / SPIRIT OF NEWPORT WAS THE RECEIVING VESSEL
CAUSE: UNKNOWN

ACT: NONE / THE SAID SUSPECTED RESPONSIBLE PARTY DOES NOT KNOW AT T
BY:

STATE SPILLS SITE

SEARCH ID: 43 **DIST/DIR:** NON GC **MAP ID:**

NAME: POLE 249
ADDRESS: NANNAQUAKET ROAD
TIVERTON RI 02878
CONTACT: D SQUIRES

REV: 4/10/00
ID1: 95-316
ID2:
STATUS:
PHONE:

SPILL DATE: 07-15-95
STAFF: D SQUIRES
SPILL NOTIFIER: KAREN LYNCH NARRA ELECTRIC

MATERIAL SPILLED:
SPILL AMOUNT REPORTED:
INCIDENT: HOLE
SOURCE OF SPILL: TRANSFORMER

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 60 **DIST/DIR:** NON GC **MAP ID:**

NAME:	RAPOSA RESIDENCE	**REV:**	8/01/02
ADDRESS:	10 ISLAND DR	**ID1:**	RIUS-0802-38
	TIVERTON RI	**ID2:**	
		STATUS:	
CONTACT:		**PHONE:**	

SITE INFORMATION

TANK ID:	1
DATE INSTALLED:	NULL
STATUS:	IN USE
CAPACITY (GAL):	2,000
PRODUCT STORED:	HEATING OIL NO. 2

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 29 **DIST/DIR:** NON GC **MAP ID:**

NAME: RICHARD & DAVIS LUMBER YARD
ADDRESS: SWAMP LAND NEAR COOK POND
TIVERTON RI
NEWPORT
CONTACT:

REV: 3/18/93
ID1: 425078
ID2:
STATUS: UNDERGROUND STORAGE TANK
PHONE:

SPILL INFORMATION

DATE OF SPILL: 3/18/93 **TIME OF SPILL:** 0000

PRODUCT RELEASED (1): #4 FUEL OIL
QUANTITY (1): 400
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	NO
LAND:	YES	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: WETLANDS>COOK POND

CAUSE OF RELEASE

DUMPING:	YES	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: PROTECTIVE BOOMS WERE PLACED IN THE SWAMP. CONTAMINATED SOIL REMOVED BY WESTERN OIL.
RELEASE DETECTION: UST RAIN CAUSED WATER TABLE TO RISE, FORCING OIL OUT OF TANK.
MISC. NOTES: WESTERN OIL HIRED TO CLEAN UP THE SITE.

DISCHARGER INFORMATION

DISCHARGER ID: 425078 **DUN & BRADSTREET #:**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: RICHARD & DAVIS LUMBER YARD
ADDRESS:
TIVERTON RI

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 44 **DIST/DIR:** NON GC **MAP ID:**

NAME: RIVERSIDE DRIVE
ADDRESS: RIVERSIDE DRIVE
TIVERTON RI 02878
CONTACT: JOHN P. LEO

REV: 4/10/00
ID1: 97-512
ID2:
STATUS:
PHONE:

SPILL DATE: 11/07/97
STAFF: JOHN P. LEO
SPILL NOTIFIER:

MATERIAL SPILLED: GASOLINE
SPILL AMOUNT REPORTED: UNK
INCIDENT:
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 45 **DIST/DIR:** NON GC **MAP ID:**

NAME: SEAPOWET ROAD
ADDRESS: SEAPOWET ROAD
TIVERTON RI 02878
CONTACT: J LEO

REV: 4/10/00
ID1: 96-428
ID2:
STATUS:
PHONE:

SPILL DATE: 10-18-96
STAFF: J LEO
SPILL NOTIFIER:

MATERIAL SPILLED:
SPILL AMOUNT REPORTED:
INCIDENT:
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 46 **DIST/DIR:** NON GC **MAP ID:**

NAME: SEAPOWETT AVE
ADDRESS: SEAPOWETT AVE
TIVERTON RI 02878
CONTACT: D SQUIRES

REV: 4/10/00
ID1: 95-201
ID2:
STATUS:
PHONE:

SPILL DATE: 05-22-95
STAFF: D SQUIRES
SPILL NOTIFIER: ANONYMOUS

MATERIAL SPILLED: CREASOTE
SPILL AMOUNT REPORTED: 1 GALLON
INCIDENT: NEAR BRIDGE
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SPILLS SITE

SEARCH ID: 47 **DIST/DIR:** NON GC **MAP ID:**

NAME: SHUN PIKE
ADDRESS: SHUN PIKE
TIVERTON RI 02878
CONTACT:

REV: 4/10/00
ID1: 99-478
ID2:
STATUS:
PHONE:

SPILL DATE: 08/17/99
STAFF:
SPILL NOTIFIER:

MATERIAL SPILLED: DIESEL FUEL,HYDRAUL OIL
SPILL AMOUNT REPORTED:
INCIDENT: OVERTURNS
SOURCE OF SPILL: TRUCK

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

STATE SPILLS SITE

SEARCH ID: 48 **DIST/DIR:** NON GC **MAP ID:**

NAME: STATE ST
ADDRESS: STATE ST
TIVERTON RI 02878
CONTACT: J LEO

REV: 4/10/00
ID1: 97-162
ID2:
STATUS:
PHONE:

SPILL DATE: 04-21-97
STAFF: J LEO
SPILL NOTIFIER:

MATERIAL SPILLED: WASTE OIL
SPILL AMOUNT REPORTED: 55 GALLONS
INCIDENT:
SOURCE OF SPILL:

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

STATE SITE

SEARCH ID: 33 **DIST/DIR:** NON GC **MAP ID:**

NAME: TIVERTON BARRELS
ADDRESS: LAFAYETTE ROAD
TIVERTON RI 02878
CONTACT:

REV: 2/24/03
ID1: TIB-HWM
ID2:
STATUS: INACTIVE
PHONE:

SITE INFORMATION

PROJECT DATE:

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

RCRA GENERATOR SITE

SEARCH ID: 27 **DIST/DIR:** NON GC **MAP ID:**

NAME: TIVERTON POWER ASSOCIATES
ADDRESS: 304 PROGRESS RD
TIVERTON RI 02878
CONTACT:

REV: 12/9/02
ID1: RIR000500215
ID2:
STATUS: LGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

LQG - LARGE QUANTITY GENERATORS: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	**DATE:**	25-JUN-02
TYPE:	120 - WRITTEN INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**RESPONSIBLE:**	S - STATE
DETERMINED:	12-JUN-02	**DETERMINED BY:**	S - STATE
CITATION:	5.09	**RESOLVED:**	18-JUL-02
TYPE:	GMR - GENERATOR MANIFEST REQUIREMENTS		
VIOLATION NUMBER:	0002	**RESPONSIBLE:**	S - STATE
DETERMINED:	12-JUN-02	**DETERMINED BY:**	S - STATE
CITATION:	5.03, 262.20	**RESOLVED:**	18-JUL-02
TYPE:	GMR - GENERATOR MANIFEST REQUIREMENTS		
VIOLATION NUMBER:	0003	**RESPONSIBLE:**	S - STATE
DETERMINED:	12-JUN-02	**DETERMINED BY:**	S - STATE
CITATION:	5.08, 262.11	**RESOLVED:**	18-JUL-02
TYPE:	GHW		

Environmental FirstSearch
Site Detail Report

TARGET SITE: TIVERTON RI 02878 **JOB:** 71512

SOLID WASTE LANDFILL SITE

SEARCH ID: 59 **DIST/DIR:** NON GC **MAP ID:**

NAME: TIVERTON SANITARY LANDFILL
ADDRESS: 3532 MAIN ROAD
TIVERTON RI 02878
CONTACT: JOSEPH FARIAS JR

REV: 01-24-01
ID1: RISW-7
ID2:
STATUS: ACTIVE
PHONE: 401-625-6760

DETAILS NOT AVAILABLE

STATE SPILLS SITE

SEARCH ID: 49 **DIST/DIR:** NON GC **MAP ID:**

NAME: TOWN LANDFILL
ADDRESS: 511 PIPPIN ORCHARD
TIVERTON RI 02878
CONTACT: D SQUIRES

REV: 4/10/00
ID1: 96-361
ID2:
STATUS:
PHONE:

SPILL DATE: 09-17-96
STAFF: D SQUIRES
SPILL NOTIFIER: TIVERTON POLICE

MATERIAL SPILLED: DIESEL,HYDRAULIC
SPILL AMOUNT REPORTED: 5 GALLONS
INCIDENT: OVERTURNED
SOURCE OF SPILL: TRASH TRUCK

LUST?:
PCB LEVEL:
SOIL CONTAMINATED?:

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

TARGET SITE: TIVERTON RI 02878

JOB: 71512

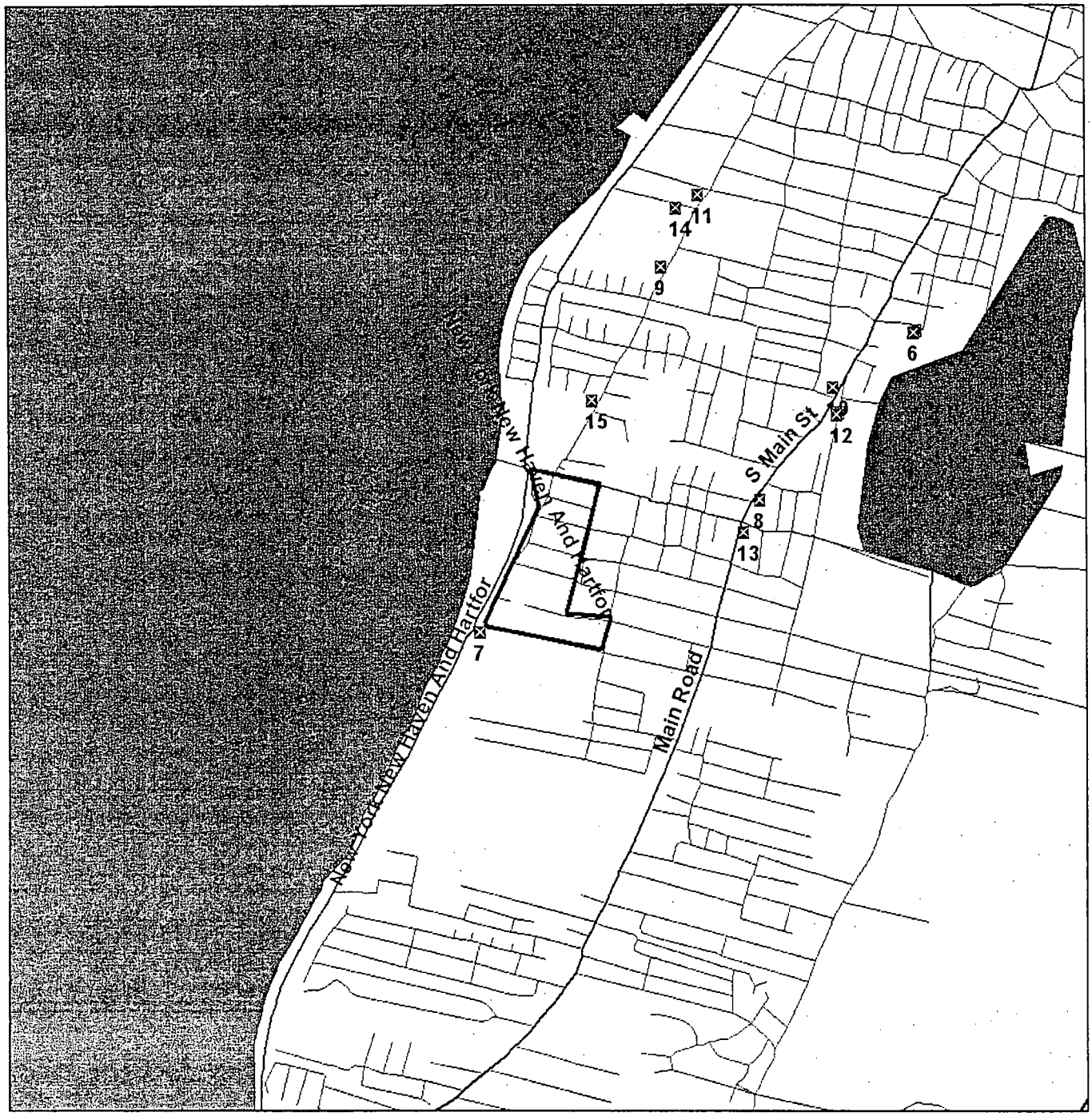
Street Name	Dist/Dir	Street Name	Dist/Dir
A Connell St	0.00 --		
Arnold St	0.01 NE		
Atlantic Blvd	0.22 NW		
Bailey St	0.21 SE		
Bay St	0.00 --		
Blaisdell Ave	0.21 SE		
Borden Rd	0.17 SW		
Bottom St	0.00 --		
Byron St	0.24 NE		
Canonicus St	0.00 --		
Carpenter St	0.21 NE		
Chase Ave	0.00 --		
Church St	0.00 --		
Clarkson St	0.17 SE		
Cliff St	0.15 NE		
Duke St	0.25 NE		
Flynn St	0.20 NE		
Foote St	0.00 --		
Hilton St	0.00 --		
Hooper St	0.00 --		
Judson St	0.00 --		
Kaufman Rd	0.25 SW		
Kempton St	0.19 NE		
Last St	0.17 SE		
Lepes Rd	0.21 SW		
Main Rd	0.24 SE		
Mathew Rd	0.07 SW		
Mathias Ave	0.24 SE		
Metheun St	0.10 SE		
Pembroke St	0.20 NE		
Prince St	0.15 NE		
Robert St	0.14 SE		
Roosevelt St	0.20 NE		
Sampson St	0.13 NE		
Sission Ave	0.17 SW		
State Ave	0.00 --		
Summit St	0.19 NE		
Swift St	0.04 NE		
Taft St	0.20 NE		
Well Meadow Way	0.13 SW		

Environmental FirstSearch

1 Mile Radius from Area

ASTM Map: NPL, RCRACOR, STATE Sites

, TIVERTON RI 02878



Source: 1999 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

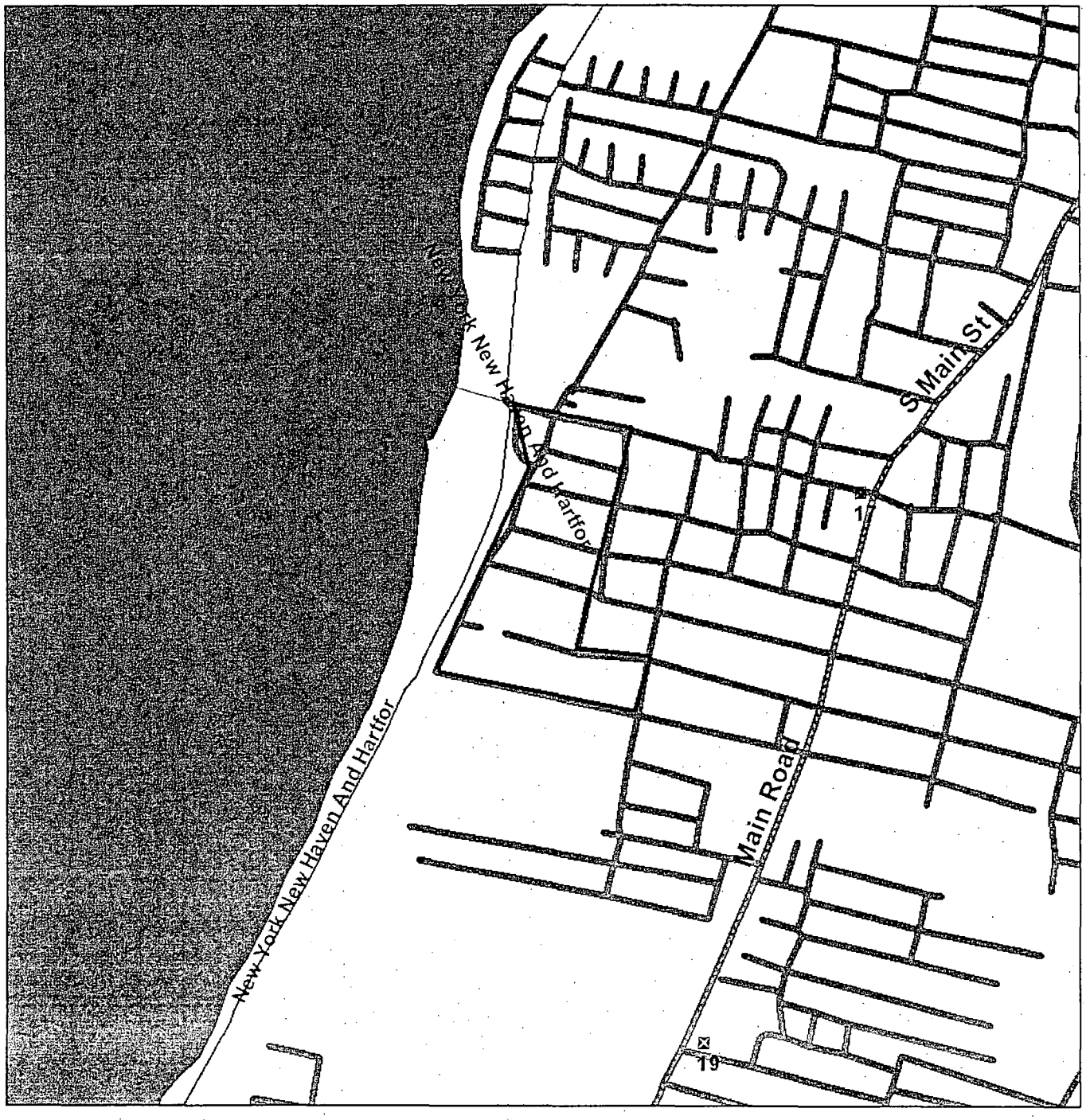
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.5 Mile Radius from Area

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

, TIVERTON RI 02878



Source: 1999 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

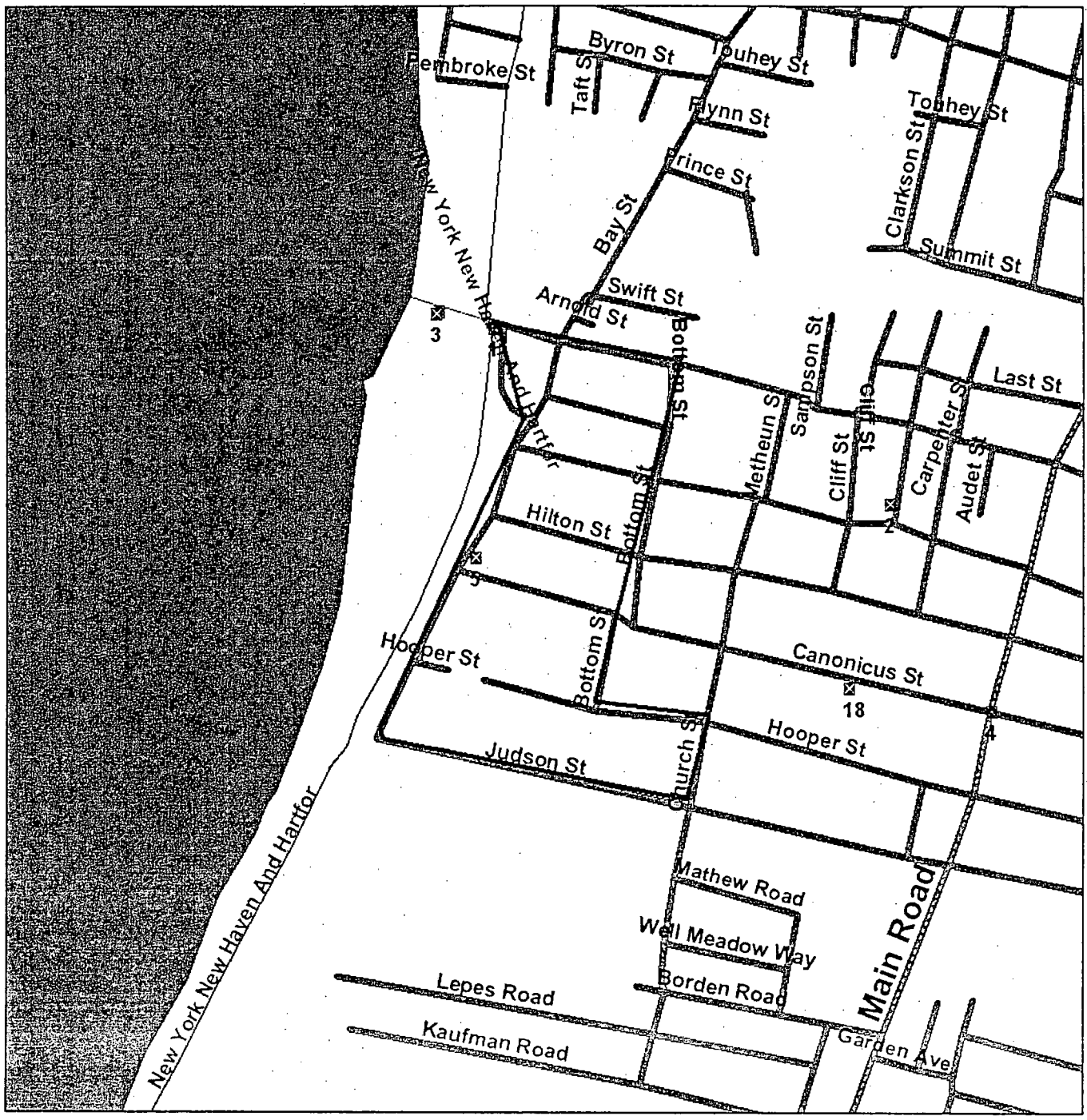
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.25 Mile Radius from Area

ASTM Map: RCRAGEN, ERNS, UST

, TIVERTON RI 02878



Source: 1999 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

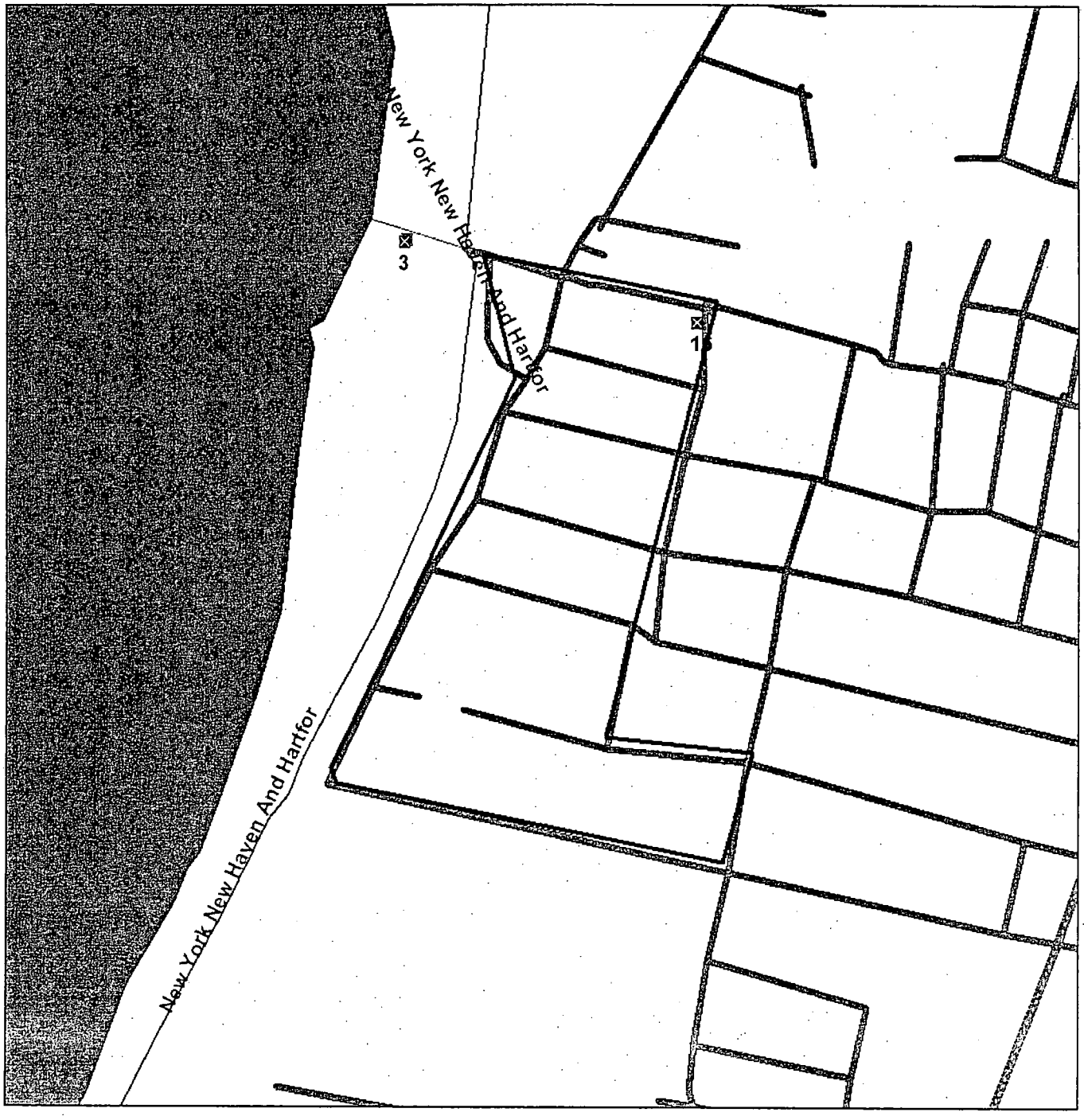
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.15 Mile Radius from Area

Non-ASTM Map: Spills 90

, TIVERTON RI 02878



Source: 1999 U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

National Historic Sites and Landmark Sites .....

Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Appendix F – Soil Boring Logs

VHB Soil Boring Report

Bay Street Suspected Fill Area
Southern Union Company
Tiverton, Rhode Island

Report of Boring No. 1605-SS1
Well ID: N/A
Job Number: **71512** Sheet 1 of 1

Drilling Company: Zebra Environmental Corporation
Driller: Jason Frederick
Inspector: C. Masse

Boring Location: Western portion of the property
Elevation: NA Datum: NA
Start Date: 8/27/2003 End Date: 8/27/2003

The borings were drilled by a ATV-mounted Geoprobe. Unless otherwise noted, the soil samples were collected using a 48" dedicated acetate sleeve driven by a vibratory hammer.

GROUNDWATER READINGS

Date	Time	Depth	Casing	Stabilization Time

Depth	PID Reading	Sample No.	Sample Pen/Rec	Sample Depth (ft)	Sample Blows/6"	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION
0-1.5						Dk. Brown very fine sand and silt, trace fine channers	
1.5-2	0.4					Lt. Tan/white very fine to fine sand, trace silt	

GRANULAR SOILS BLOWS/FT	DENSITY
0 - 4	V. Loose
4 - 10	Loose
10 - 30	M. Dense
30 - 50	Dense
>50	V. Dense

COHESIVE SOILS BLOWS/FT	DENSITY
<2	V. Soft
2 - 4	Soft
4 - 8	M. Stiff
8 - 15	Stiff
15 - 30	V. Stiff
>30	Hard

PROPORTIONS	
Trace	0 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

REMARKS

All soil samples were screened in the field for VOCs using a ThermoEnvironmental Instruments model 580B 10.eV photoionization detector (PID).

NOTES
1) Soil stratification lines represent a graphical depiction of changes in soil type and grainsize. Actual changes may be gradual.
2) Bedrock was not encountered.
3) Water levels may fluctuate due to ocean tides, season, and precipitation rates.

VHB Soil Boring Report

Bay Street Suspected Fill Area
Southern Union Company
Tiverton, Rhode Island

Report of Boring No. 1605-SS2
Well ID: N/A
Job Number: **71512** Sheet 1 of 1

Drilling Company: Zebra Environmental Corporation
Driller: Jason Frederick
Inspector: C. Masse

Boring Location: Southeastern portion of the property
Elevation: NA Datum: NA
Start Date: 8/27/2003 End Date: 8/27/2003

The borings were drilled by a ATV-mounted Geoprobe. Unless otherwise noted, the soil samples were collected using a 48" dedicated acetate sleeve driven by a vibratory hammer.

GROUNDWATER READINGS

Date	Time	Depth	Casing	Stabilization Time

Depth	PID Reading	Sample No.	Pen/Rec	Depth (ft)	Blows/6"	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION
0-0.9						Dk. Brown very fine to fine sand and silt	
0.9-1.3	ND					Black uncombusted coal dust	
1.3-1.45						Greyish brown silt and very fine sand	
1.45-1.7						Leather or felt material	
1.7-2						Grey fine sand, trace silt, redoximorphic concentration	

GRANULAR SOILS BLOWS/FT	DENSITY
0 - 4	V. Loose
4 - 10	Loose
10 - 30	M. Dense
30 - 50	Dense
>50	V. Dense

COHESIVE SOILS BLOWS/FT	DENSITY
<2	V. Soft
2 - 4	Soft
4 - 8	M. Stiff
8 - 15	Stiff
15 - 30	V. Stiff
>30	Hard

PROPORTIONS	
Trace	0 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

REMARKS

All soil samples were screened in the field for VOCs using a ThermoEnvironmental Instruments model 580B 10.eV photoionization detector (PID).

NOTES:
1) Soil stratification lines represent a graphical depiction of changes in soil type and grainsize. Actual changes may be gradual.
2) Bedrock was not encountered.
3) Water levels may fluctuate due to ocean tides, season, and precipitation rates.

VHB Soil Boring Report

PROJECT	Report of Boring No.	1605-1/SS3
Bay Street Suspected Fill Area Tiverton, Rhode Island	Well ID:	N/A
	Job Number: 71512	Sheet 1 of 1

Drilling Company: Zebra Drilling
Driller: Jason Frederick
Inspector: P. McCarthy

Boring Location: Southwest portion of property
Elevation: NA Datum: NA
Start Date: 8/27/2003 End Date: 8/27/2003

The borings were drilled by a ATV mounted Geoprobe. Unless otherwise noted, the soil samples were collected using a 48" dedicated acetate sleeve driven by a vibratory hammer.

GROUNDWATER READINGS

Date	Time	Depth	Casing	Stabilization Time

Depth	PID Reading	Sample No.	Sample Pen/Rec	Sample Depth (ft)	Sample Blows/6"	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION
4	<0.1 ppm	1	36"	0-4	N/A	7" brown fine SAND and silt over 11" dark gray to black granular m/c SAND (poss. coal dust?) over 19" tan to gray fine SAND and silt with redox concentrations. No odors.	
8			33"	4-8	N/A	5" tan-brown fine SAND and silt over dark brown to gray fine SAND and silt with little crushed stone and gravel, wet.	
						Bottom of exploration 8' below grade	

GRANULAR SOILS BLOWS/FT	DENSITY	COHESIVE SOILS BLOWS/FT	DENSITY	PROPORTIONS	
0 - 4	V. Loose	<2	V. Soft	Trace	0 - 10%
4 - 10	Loose	2 - 4	Soft	Little	10 - 20%
10 - 30	M. Dense	4 - 8	M. Stiff	Some	20 - 35%
30 - 50	Dense	8 - 15	Stiff	And	35 - 50%
>50	V. Dense	15 - 30	V. Stiff		
		>30	Hard		

REMARKS

All soil samples were screened in the field for VOCs using a ThermoEnvironmental Instruments model 580B 10.6 eV photoionization detector (PID).

NOTES
1) Soil stratification lines represent a graphical depiction of changes in soil type and grainsize. Actual changes may be gradual.
2) Bedrock was not encountered.
3) Water levels may fluctuate due to ocean tides, season, and precipitation rates.

Appendix G – Certificates of Analysis

PROJECT NARRATIVE

CLIENT: Vanasse Hangen Brustlin, Inc.
CLIENT PROJECT ID: Bay St.
ESS PROJECT ID: 03080324

Sample Receipt
7 Soil samples were received on August 27, 2003 for the analysis specified on the enclosed Chain of Custody Record.

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results.

Metals Analysis
ESS Laboratory utilized the established linear dynamic range to determine acceptable analytical results.
The batch Matrix Spike was outside of the recommended range for Antimony. This analyte was biased low. (PDS - 97%)
The batch Matrix Spike was outside of the recommended range for Mercury due to dilution. (PDS - 99%)

Semivolatile Organics Analysis
Surrogate recovery was outside of the recommended range for samples 03080324-06 and 03080324-07.
The batch Matrix Spike/Matrix Spike Duplicate was outside of the recommended ranges for Hexachlorocyclopentadiene, N-Nitrosodimethylamine, and Pyridine due to matrix interferences. These analytes were biased low.
The batch Matrix Spike/Matrix Spike Duplicate was outside of the recommended range for Fluoranthene and Pyrene due to matrix interferences. These analytes were biased high.
The Relative Percent Difference for the Matrix Spike/Matrix Spike Duplicate was outside of the recommended range for Fluoranthene, Phenanthrene, and Pyrene.
Internal standard recovery was outside of the recommended ranges for samples 03080324-06 and 03080324-07 due to matrix interferences. Reanalysis of samples produced similar results. For sample 03080324-06, Chrysene-d12 recovered at 43% and Perylene-d12 recovered at 22%. For sample 03080324-07, Chrysene-d12 recovered at 24% and Perylene-d12 recovered at 20%.
Retention times for all internal standards are within criteria.

No other observations noted.

This signed Certificate of Analysis is our approved release of your analytical results. Beginning with this Project Narrative, the entire report has been paginated. The Chain of Custody is the final report page. This report should not be copied except in full without the approval of the laboratory.

End of project narrative.

Laurel Stoddard/Eric Baanante
Laboratory Director/Operations Manager

9/15/03
Date

THIELSCH ENGINEERING, INC.

Certificate of Analysis

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1

ESS Project ID: 03080324
ESS Sample ID: 03080324-01
Date Sampled: 8/27/03

Test Name	Result	Units	MRL	Date Analyzed	Method	Analyst
Total Cyanide	ND	mg/Kg dry wt.	2.9	08/28/03	9010	KMW

ND = Not Detected above MRL

MRL = Method Reporting Limit.

Approved By: _____

ESS Laboratory Division

Date: 9/5/03

BLK

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002

THIELSCH ENGINEERING, INC.

Certificate of Analysis

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1A

ESS Project ID: 03080324
ESS Sample ID: 03080324-02
Date Sampled: 8/27/03

Test Name	Result	Units	MRL	Date Analyzed	Method	Analyst
Total Cyanide	ND	mg/Kg dry wt.	2.9	08/28/03	9010	KMW

ND = Not Detected above MRL

MRL = Method Reporting Limit.

Approved By: KP

Date: 9/5/03

ESS Laboratory Division

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THIELSCH ENGINEERING, INC.

Certificate of Analysis

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2

ESS Project ID: 03080324
ESS Sample ID: 03080324-03
Date Sampled: 8/27/03

Test Name	Result	Units	MRL	Date Analyzed	Method	Analyst
Total Cyanide	ND	mg/Kg dry wt.	3.5	08/28/03	9010	KMW

ND = Not Detected above MRL

MRL = Method Reporting Limit.

Approved By: _____

Date: 9/5/07

ESS Laboratory Division

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004

THIELSCH ENGINEERING, INC.

Certificate of Analysis

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2A

ESS Project ID: 03080324
ESS Sample ID: 03080324-04
Date Sampled: 8/27/03

Test Name	Result	Units	MRL	Date Analyzed	Method	Analyst
Total Cyanide	ND	mg/Kg dry wt.	3.4	08/28/03	9010	KMW

ND = Not Detected above MRL

MRL = Method Reporting Limit.

Approved By: VP

Date: 9/5/03

ESS Laboratory Division

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THIELSCH ENGINEERING, INC.

Certificate of Analysis

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-1

ESS Project ID: 03080324
ESS Sample ID: 03080324-05
Date Sampled: 8/27/03

Test Name	Result	Units	MRL	Date Analyzed	Method	Analyst
Total Cyanide	ND	mg/Kg dry wt.	3	08/28/03	9010	KMW

ND = Not Detected above MRL

MRL = Method Reporting Limit.

Approved By: KD

Date: 9/5/03

ESS Laboratory Division

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THIELSCH ENGINEERING, INC.

Certificate of Analysis

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS3

ESS Project ID: 03080324
ESS Sample ID: 03080324-06
Date Sampled: 8/27/03

Test Name	Result	Units	MRL	Date Analyzed	Method	Analyst
Total Cyanide	**4.7**	mg/Kg dry wt.	3.4	08/28/03	9010	KMW

ND = Not Detected above MRL

MRL = Method Reporting Limit.

Approved By: _____

Date: 9/5/03

ESS Laboratory Division

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THIELSCH ENGINEERING, INC.

Certificate of Analysis

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1
Date Sampled: 8/27/03
Percent Solid: 87

ESS Project ID: 03080324
ESS Sample ID: 03080324-01
Units: mg/Kg dry weight
GFAA Information: 5/1.53/100
ICP1 Information: 1/1.53/100
Mercury Information: 10/0.61/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND	7.51	08/28/03	JP	6010
Arsenic	**3.49 ***	0.751	09/03/03	JP	7060
Beryllium	**0.128**	0.075	08/28/03	JP	6010
Cadmium	ND	0.751	08/28/03	JP	6010
Chromium	**2.99**	1.5	08/28/03	JP	6010
Copper	**7.11**	1.5	08/28/03	JP	6010
Lead	**35.3**	7.51	08/28/03	JP	6010
Mercury	**1.99****	0.377	08/28/03	JP	7471
Nickel	ND	1.5	08/28/03	JP	6010
Selenium	ND	7.51	08/28/03	JP	6010
Silver	ND	0.751	08/28/03	JP	6010
Thallium	ND *	1.88	09/02/03	JP	7841
Zinc	**16.8**	3.76	08/28/03	JP	6010

* = Result and MRL based on 5x dilution.
** = Result and MRL based on 10x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: M Date: 9/3/03

HJL

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008

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1A
Date Sampled: 8/27/03
Percent Solid: 85

ESS Project ID: 03080324
ESS Sample ID: 03080324-02
Units: mg/Kg dry weight
GFAA Information: 5/1.53/100
ICP1 Information: 1/1.53/100
Mercury Information: 10/0.62/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND	7.69	08/28/03	JP	6010
Arsenic	**6.57 ***	0.769	09/03/03	JP	7060
Beryllium	**0.192**	0.077	08/28/03	JP	6010
Cadmium	ND	0.769	08/28/03	JP	6010
Chromium	**5.75**	1.54	08/28/03	JP	6010
Copper	**10.6**	1.54	08/28/03	JP	6010
Lead	**72.2**	7.69	08/28/03	JP	6010
Mercury	**2.94****	0.38	08/28/03	JP	7471
Nickel	**3.46**	1.54	08/28/03	JP	6010
Selenium	ND	7.69	08/28/03	JP	6010
Silver	ND	0.769	08/28/03	JP	6010
Thallium	ND *	1.92	09/02/03	JP	7841
Zinc	**30.1**	3.84	08/28/03	JP	6010

* = Result and MRL based on 5x dilution.
** = Result and MRL based on 10x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: m Date: 9/3/03

ESS Laboratory Division

HJL

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THIELSCH ENGINEERING, INC.

Certificate of Analysis

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2
Date Sampled: 8/27/03
Percent Solid: 72

ESS Project ID: 03080324
ESS Sample ID: 03080324-03
Units: mg/Kg dry weight
GFAA Information: 5/1.6/100
ICP1 Information: 1/1.6/100
Mercury Information: 50/0.61/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND	8.68	08/28/03	JP	6010
Arsenic	**6.73 ***	0.868	09/03/03	JP	7060
Beryllium	**0.2**	0.087	08/28/03	JP	6010
Cadmium	ND	0.868	08/28/03	JP	6010
Chromium	**16.8**	1.74	08/28/03	JP	6010
Copper	**26.8**	1.74	08/28/03	JP	6010
Lead	**57.2**	8.68	08/28/03	JP	6010
Mercury	**26.5****	2.28	08/28/03	JP	7471
Nickel	**4.35**	1.74	08/28/03	JP	6010
Selenium	ND	8.68	08/28/03	JP	6010
Silver	ND	0.868	08/28/03	JP	6010
Thallium	ND *	2.17	09/02/03	JP	7841
Zinc	**80**	4.34	08/28/03	JP	6010

* = Result and MRL based on 5x dilution.
** = Result and MRL based on 50x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: M

Date: 9/3/03

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THIELSCH ENGINEERING, INC.

Certificate of Analysis

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2A
Date Sampled: 8/27/03
Percent Solid: 72

ESS Project ID: 03080324
ESS Sample ID: 03080324-04
Units: mg/Kg dry weight
GFAA Information: 5/1.56/100
ICP1 Information: 1/1.56/100
Mercury Information: 20/0.62/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND	8.9	08/28/03	JP	6010
Arsenic	**18.6 ***	0.89	09/03/03	JP	7060
Beryllium	**0.766**	0.089	08/28/03	JP	6010
Cadmium	ND	0.89	08/28/03	JP	6010
Chromium	**16.6**	1.78	08/28/03	JP	6010
Copper	**55.9**	1.78	08/28/03	JP	6010
Lead	**185**	8.9	08/28/03	JP	6010
Mercury	**14.6****	0.896	08/28/03	JP	7471
Nickel	**6.7**	1.78	08/28/03	JP	6010
Selenium	ND	8.9	08/28/03	JP	6010
Silver	ND	0.89	08/28/03	JP	6010
Thallium	ND *	2.23	09/02/03	JP	7841
Zinc	**273**	4.45	08/28/03	JP	6010

* = Result and MRL based on 5x dilution.
** = Result and MRL based on 20x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: JM Date: 9/3/03

ESS Laboratory Division

HJL

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Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-1
Date Sampled: 8/27/03
Percent Solid: 84

ESS Project ID: 03080324
ESS Sample ID: 03080324-05
Units: mg/Kg dry weight
GFAA Information: 5/1.56/100
ICP1 Information: 1/1.56/100
Mercury Information: 20/0.6/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND	7.63	08/28/03	JP	6010
Arsenic	**4.73 ***	0.763	09/03/03	JP	7060
Beryllium	**0.107**	0.076	08/28/03	JP	6010
Cadmium	ND	0.763	08/28/03	JP	6010
Chromium	**4.95**	1.53	08/28/03	JP	6010
Copper	**10**	1.53	08/28/03	JP	6010
Lead	ND	7.63	08/28/03	JP	6010
Mercury	**10.2****	0.794	08/28/03	JP	7471
Nickel	**2.82**	1.53	08/28/03	JP	6010
Selenium	ND	7.63	08/28/03	JP	6010
Silver	ND	0.763	08/28/03	JP	6010
Thallium	ND *	1.91	09/02/03	JP	7841
Zinc	**20.1**	3.82	08/28/03	JP	6010

* = Result and MRL based on 5x dilution.
** = Result and MRL based on 20x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: KP

Date: 9/19/03

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Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS3
Date Sampled: 8/27/03
Percent Solid: 74

ESS Project ID: 03080324
ESS Sample ID: 03080324-06
Units: mg/Kg dry weight
GFAA Information: 5/1.52/100
ICP1 Information: 1/1.52/100
Mercury Information: 50/0.61/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND	8.89	08/28/03	JP	6010
Arsenic	**42.3 ***	0.889	09/03/03	JP	7060
Beryllium	**0.187**	0.089	08/28/03	JP	6010
Cadmium	ND	0.889	08/28/03	JP	6010
Chromium	**18.8**	1.78	08/28/03	JP	6010
Copper	**88**	1.78	08/28/03	JP	6010
Lead	**200**	8.89	08/28/03	JP	6010
Mercury	**42.2****	2.22	08/28/03	JP	7471
Nickel	**3.94**	1.78	08/28/03	JP	6010
Selenium	ND	8.89	08/28/03	JP	6010
Silver	ND	0.889	08/28/03	JP	6010
Thallium	ND***	2.22	09/02/03	JP	7841
Zinc	**190**	4.45	08/28/03	JP	6010

* = Result and MRL based on 15x dilution.
** = Result and MRL based on 50x dilution.
*** = Result and MRL based on 5x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: m Date: 9/3/03

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Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2 (felt/leather)
Date Sampled: 8/27/03
Percent Solid: 44

ESS Project ID: 03080324
ESS Sample ID: 03080324-07
Units: mg/Kg dry weight
GFAA Information: 5/1.53/100
ICP1 Information: 1/1.53/100
Mercury Information: 1000/0.64/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND *	3.71	09/03/03	JP	7041
Arsenic	**75.8****	1.48	09/03/03	JP	7060
Beryllium	**0.416**	0.149	08/28/03	JP	6010
Cadmium	ND	1.48	08/28/03	JP	6010
Chromium	**175**	2.97	08/28/03	JP	6010
Copper	**194**	2.97	08/28/03	JP	6010
Lead	**313**	14.8	08/28/03	JP	6010
Mercury	**892*****	71	08/28/03	JP	7471
Nickel	**9.15**	2.97	08/28/03	JP	6010
Selenium	ND	14.8	08/28/03	JP	6010
Silver	ND	1.48	08/28/03	JP	6010
Thallium	ND *	3.71	09/02/03	JP	7841
Zinc	**255**	7.43	08/28/03	JP	6010

* = Result and MRL based on 5x dilution.
** = Result and MRL based on 15x dilution.
*** = Result and MRL based on 1000x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: m Date: 9/3/03

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8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1
Date Sampled: 8/27/03
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-01
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 87
Sample Amount: 29.4 g

Test Name	Result	MRL
Total Petroleum Hydrocarbons	ND	29.3

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CLB
ESS Laboratory Division

Date: 9/03/03

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8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1A
Date Sampled: 8/27/03
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-02
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 85
Sample Amount: 29.2 g

Test Name	Result	MRL
Total Petroleum Hydrocarbons	**33.4**	30.2

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CLB
ESS Laboratory Division

Date: 9/3/03

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Certificate of Analysis

8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2
Date Sampled: 8/27/03
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-03
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 72
Sample Amount: 29.1 g

Test Name	Result	MRL
Total Petroleum Hydrocarbons	ND	35.8

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CLB
ESS Laboratory Division

Date: 9/3/03

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8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2A
Date Sampled: 8/27/03
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-04
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 72
Sample Amount: 29.3 g

Test Name	Result	MRL
Total Petroleum Hydrocarbons	ND	35.6

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: AB
ESS Laboratory Division

Date: 9/3/03

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8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-1
Date Sampled: 8/27/03
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-05
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 84
Sample Amount: 29.6 g

Test Name	Result	MRL
Total Petroleum Hydrocarbons	ND	30.2

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CLB
ESS Laboratory Division

Date: 9/3/03

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Certificate of Analysis

8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS3
Date Sampled: 8/27/03
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-06
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 74
Sample Amount: 29.4 g

Test Name	Result	MRL
Total Petroleum Hydrocarbons	ND	34.5

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CLB
ESS Laboratory Division

Date: 9/3/03

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020

EPA Methods 5035/8260B
Methanol Extraction

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1
Date Sampled: 8/27/03
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-01
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 87
Sample Amount: 20.7 g

Test Name	Result	MRL
Benzene	ND	0.0416
Ethylbenzene	ND	0.0416
Toluene	ND	0.0416
Xylenes (Total)	ND	0.0833

MRL = Method Reporting Limit. ND = Not Detected above MRL.

Approved By: _____ Date: 9/2/03
ESS Laboratory Division

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021

EPA Methods 5035/8260B
Methanol Extraction

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1A
Date Sampled: 8/27/03
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-02
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 85
Sample Amount: 16.7 g

Test Name	Result	MRL
Benzene	ND	0.0528
Ethylbenzene	ND	0.0528
Toluene	ND	0.0528
Xylenes (Total)	ND	0.106

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: MD
ESS Laboratory Division

Date: 9/2/03

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Certificate of Analysis

EPA Methods 5035/8260B
Methanol Extraction

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2
Date Sampled: 8/27/03
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-03
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 72
Sample Amount: 11.5 g

Test Name	Result	MRL
Benzene	ND	0.0906
Ethylbenzene	ND	0.0906
Toluene	ND	0.0906
Xylenes (Total)	ND	0.181

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: _____ Date: 9/2/03
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EPA Methods 5035/8260B
Methanol Extraction

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2A
Date Sampled: 8/27/03
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-04
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 72
Sample Amount: 18.4 g

Test Name	Result	MRL
Benzene	ND	0.0566
Ethylbenzene	ND	0.0566
Toluene	ND	0.0566
Xylenes (Total)	ND	0.113

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: MD
ESS Laboratory Division

Date: 9/2/03

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EPA Methods 5035/8260B
Methanol Extraction

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-1
Date Sampled: 8/27/03
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-05
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 84
Sample Amount: 22.2 g

Test Name	Result	MRL
Benzene	ND	0.0402
Ethylbenzene	ND	0.0402
Toluene	ND	0.0402
Xylenes (Total)	ND	0.0804

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: _____ Date: 9/2/03
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EPA Methods 5035/8260B
Methanol Extraction

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS3
Date Sampled: 8/27/03
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-06
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 74
Sample Amount: 11.2 g

Test Name	Result	MRL
Benzene	ND	0.0905
Ethylbenzene	ND	0.0905
Toluene	ND	0.0905
Xylenes (Total)	ND	0.181

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: _____ Date: 9/2/03
ESS Laboratory Division

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1
Date Sampled: 8/27/03
Analyst: BML
Date Analyzed: 8/29/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-01
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 87
Sample Amount: 30 g

Test Name	Result	MRL
1,1-Biphenyl	ND	0.383
1,2,4-Trichlorobenzene	ND	0.383
1,2-Dichlorobenzene	ND	0.383
1,3-Dichlorobenzene	ND	0.383
1,4-Dichlorobenzene	ND	0.192
2,4,5-Trichlorophenol	ND	0.383
2,4,6-Trichlorophenol	ND	0.383
2,4-Dichlorophenol	ND	0.383
2,4-Dimethylphenol	ND	1.92
2,4-Dinitrophenol	ND	1.92
2,4-Dinitrotoluene	ND	0.383
2,6-Dinitrotoluene	ND	0.383
2-Chloronaphthalene	ND	0.383
2-Chlorophenol	ND	0.383
2-Methylnaphthalene	ND	0.383
2-Methylphenol	ND	0.383
2-Nitroaniline	ND	0.383
2-Nitrophenol	ND	0.383
3+4-Methylphenol	ND	0.383
3,3′-Dichlorobenzidine	ND	0.766
3-Nitroaniline	ND	0.383
4,6-Dinitro-2-Methylphenol	ND	1.92
4-Bromophenyl-phenylether	ND	0.383
4-Chloro-3-Methylphenol	ND	0.383
4-Chloro-phenyl-phenyl ether	ND	0.383
4-Chloroaniline	ND	0.766
4-Nitroaniline	ND	0.383
4-Nitrophenol	ND	1.92
Acenaphthene	ND	0.383
Acenaphthylene	ND	0.383
Acetophenone	ND	0.383
Aniline	ND	0.383
Anthracene	ND	0.383
Azobenzene	ND	0.383
Benzo(a)anthracene	**0.922**	0.383
Benzo(a)pyrene	**0.858**	0.383
Benzo(b)fluoranthene	**1.02**	0.383

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Certificate of Analysis

Client Project ID: Bay St.
Client Sample ID: 1605-SS1

ESS Project ID: 03080324
ESS Sample ID: 03080324-01

Test Name	Result	MRL
Benzo(g,h,i)perylene	**0.423**	0.383
Benzo(k)fluoranthene	**0.69**	0.383
Benzoic Acid	ND	1.92
Benzyl Alcohol	ND	0.383
bis(2-Chloroethoxy)methane	ND	0.383
bis(2-Chloroethyl)ether	ND	0.383
bis(2-chloroisopropyl)Ether	ND	0.383
bis(2-Ethylhexyl)phthalate	ND	0.383
Butylbenzylphthalate	ND	0.383
Carbazole	ND	0.383
Chrysene	**1.06**	0.383
Di-n-butylphthalate	ND	0.383
Di-n-octylphthalate	ND	0.383
Dibenzo(a,h)Anthracene	ND	0.383
Dibenzofuran	ND	0.383
Diethylphthalate	ND	0.383
Dimethylphthalate	ND	0.383
Fluoranthene	**1.65**	0.383
Fluorene	ND	0.383
Hexachlorobenzene	ND	0.383
Hexachlorobutadiene	ND	0.383
Hexachlorocyclopentadiene	ND	1.92
Hexachloroethane	ND	0.383
Indeno(1,2,3-cd)Pyrene	ND	0.383
Isophorone	ND	0.383
N-Nitroso-Di-n-Propylamine	ND	0.383
N-Nitrosodimethylamine	ND	0.383
N-nitrosodiphenylamine	ND	0.383
Naphthalene	ND	0.383
Nitrobenzene	ND	0.383
Pentachlorophenol	ND	1.92
Phenanthrene	**0.626**	0.383
Phenol	ND	0.383
Pyrene	**2.21**	0.383
Pyridine	ND	1.92

MRL = Method Reporting Limit. ND = Not Detected above MRL.

Approved By: aB Date: 9/4/03

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1A
Date Sampled: 8/27/03
Analyst: BML
Date Analyzed: 8/29/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-02
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 85
Sample Amount: 30 g

Test Name	Result	MRL
1,1-Biphenyl	ND	0.392
1,2,4-Trichlorobenzene	ND	0.392
1,2-Dichlorobenzene	ND	0.392
1,3-Dichlorobenzene	ND	0.392
1,4-Dichlorobenzene	ND	0.196
2,4,5-Trichlorophenol	ND	0.392
2,4,6-Trichlorophenol	ND	0.392
2,4-Dichlorophenol	ND	0.392
2,4-Dimethylphenol	ND	1.96
2,4-Dinitrophenol	ND	1.96
2,4-Dinitrotoluene	ND	0.392
2,6-Dinitrotoluene	ND	0.392
2-Chloronaphthalene	ND	0.392
2-Chlorophenol	ND	0.392
2-Methylnaphthalene	ND	0.392
2-Methylphenol	ND	0.392
2-Nitroaniline	ND	0.392
2-Nitrophenol	ND	0.392
3+4-Methylphenol	ND	0.392
3,3´-Dichlorobenzidine	ND	0.784
3-Nitroaniline	ND	0.392
4,6-Dinitro-2-Methylphenol	ND	1.96
4-Bromophenyl-phenylether	ND	0.392
4-Chloro-3-Methylphenol	ND	0.392
4-Chloro-phenyl-phenyl ether	ND	0.392
4-Chloroaniline	ND	0.784
4-Nitroaniline	ND	0.392
4-Nitrophenol	ND	1.96
Acenaphthene	ND	0.392
Acenaphthylene	ND	0.392
Acetophenone	ND	0.392
Aniline	ND	0.392
Anthracene	ND	0.392
Azobenzene	ND	0.392
Benzo(a)anthracene	**1.46**	0.392
Benzo(a)pyrene	**1.33**	0.392
Benzo(b)fluoranthene	**1.4**	0.392

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Client Project ID: Bay St.
Client Sample ID: 1605-SS1A

ESS Project ID: 03080324
ESS Sample ID: 03080324-02

Test Name	Result	MRL
Benzo(g,h,i)perylene	**0.625**	0.392
Benzo(k)fluoranthene	**1.29**	0.392
Benzoic Acid	ND	1.96
Benzyl Alcohol	ND	0.392
bis(2-Chloroethoxy)methane	ND	0.392
bis(2-Chloroethyl)ether	ND	0.392
bis(2-chloroisopropyl)Ether	ND	0.392
bis(2-Ethylhexyl)phthalate	ND	0.392
Butylbenzylphthalate	ND	0.392
Carbazole	ND	0.392
Chrysene	**1.7**	0.392
Di-n-butylphthalate	ND	0.392
Di-n-octylphthalate	ND	0.392
Dibenzo(a,h)Anthracene	ND	0.392
Dibenzofuran	ND	0.392
Diethylphthalate	ND	0.392
Dimethylphthalate	ND	0.392
Fluoranthene	**2.67**	0.392
Fluorene	ND	0.392
Hexachlorobenzene	ND	0.392
Hexachlorobutadiene	ND	0.392
Hexachlorocyclopentadiene	ND	1.96
Hexachloroethane	ND	0.392
Indeno(1,2,3-cd)Pyrene	**0.592**	0.392
Isophorone	ND	0.392
N-Nitroso-Di-n-Propylamine	ND	0.392
N-Nitrosodimethylamine	ND	0.392
N-nitrosodiphenylamine	ND	0.392
Naphthalene	ND	0.392
Nitrobenzene	ND	0.392
Pentachlorophenol	ND	1.96
Phenanthrene	**1.45**	0.392
Phenol	ND	0.392
Pyrene	**3.59**	0.392
Pyridine	ND	1.96

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CB

Date: 9/4/03

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2
Date Sampled: 8/27/03
Analyst: BML
Date Analyzed: 9/3/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-03
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 72
Sample Amount: 30.1 g

Test Name	Result	MRL	2*MDL
1,1-Biphenyl	ND	0.461	0.0185
1,2,4-Trichlorobenzene	ND	0.461	0.166
1,2-Dichlorobenzene	ND	0.461	0.0369
1,3-Dichlorobenzene	ND	0.461	0.0277
1,4-Dichlorobenzene	ND	0.231	0.0277
2,4,5-Trichlorophenol	ND	0.461	0.0185
2,4,6-Trichlorophenol	ND	0.461	0.0277
2,4-Dichlorophenol	ND	0.461	0.0185
2,4-Dimethylphenol	ND	2.31	0.111
2,4-Dinitrophenol	ND	2.31	1.24
2,4-Dinitrotoluene	ND	0.461	0.0185
2,6-Dinitrotoluene	ND	0.461	0.0185
2-Chloronaphthalene	ND	0.461	0.0277
2-Chlorophenol	ND	0.461	0.0277
2-Methylnaphthalene	ND	0.461	0.0277
2-Methylphenol	ND	0.461	0.0277
2-Nitroaniline	ND	0.461	0.0185
2-Nitrophenol	ND	0.461	0.0277
3+4-Methylphenol	ND	0.461	0.0277
3,3´-Dichlorobenzidine	ND	0.923	0.12
3-Nitroaniline	ND	0.461	0.0461
4,6-Dinitro-2-Methylphenol	ND	2.31	0.0277
4-Bromophenyl-phenylether	ND	0.461	0.0277
4-Chloro-3-Methylphenol	ND	0.461	0.0185
4-Chloro-phenyl-phenyl ether	ND	0.461	0.0277
4-Chloroaniline	ND	0.923	0.129
4-Nitroaniline	ND	0.461	0.0277
4-Nitrophenol	ND	2.31	0.0185
Acenaphthene	ND	0.461	0.0277
Acenaphthylene	**0.0807 J**	0.461	0.0185
Acetophenone	ND	0.461	0.0277
Aniline	ND	0.461	0.0185
Anthracene	**0.12 J**	0.461	0.0369
Azobenzene	ND	0.461	0.0185
Benzo(a)anthracene	**0.371 J**	0.461	0.0369
Benzo(a)pyrene	**0.456 J**	0.461	0.0461
Benzo(b)fluoranthene	**0.555**	0.461	0.0461

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Client Project ID: Bay St.
Client Sample ID: 1605-SS2

ESS Project ID: 03080324
ESS Sample ID: 03080324-03

Test Name	Result	MRL	2*MDL
Benzo(g,h,i)perylene	**0.389 J**	0.461	0.0461
Benzo(k)fluoranthene	**0.366 J**	0.461	0.0923
Benzoic Acid	ND	2.31	0.388
Benzyl Alcohol	ND	0.461	0.0185
bis(2-Chloroethoxy)methane	ND	0.461	0.0185
bis(2-Chloroethyl)ether	ND	0.461	0.0923
bis(2-chloroisopropyl)Ether	ND	0.461	0.0277
bis(2-Ethylhexyl)phthalate	ND	0.461	0.138
Butylbenzylphthalate	ND	0.461	0.0277
Carbazole	**0.0406 J**	0.461	0.0185
Chrysene	**0.435 J**	0.461	0.0554
Di-n-butylphthalate	ND	0.461	0.0277
Di-n-octylphthalate	ND	0.461	0.0185
Dibenzo(a,h)Anthracene	ND	0.461	0.0369
Dibenzofuran	**0.0272 J**	0.461	0.0185
Diethylphthalate	ND	0.461	0.0738
Dimethylphthalate	ND	0.461	0.0185
Fluoranthene	**0.808**	0.461	0.0554
Fluorene	**0.0498 J**	0.461	0.0185
Hexachlorobenzene	ND	0.461	0.0185
Hexachlorobutadiene	ND	0.461	0.0461
Hexachlorocyclopentadiene	ND	2.31	0.434
Hexachloroethane	ND	0.461	0.0277
Indeno(1,2,3-cd)Pyrene	**0.321 J**	0.461	0.0369
Isophorone	ND	0.461	0.0185
N-Nitroso-Di-n-Propylamine	ND	0.461	0.0369
N-Nitrosodimethylamine	ND	0.461	0.0185
N-nitrosodiphenylamine	ND	0.461	0.0277
Naphthalene	ND	0.461	0.0277
Nitrobenzene	ND	0.461	0.0277
Pentachlorophenol	ND	2.31	0.0277
Phenanthrene	**0.593**	0.461	0.0461
Phenol	ND	0.461	0.0185
Pyrene	**0.99**	0.461	0.0461
Pyridine	ND	2.31	0.0461

J = Reported below MRL; Estimated value.
MDL = Method Detection Limit.
MRL = Method Reporting Limit.

ND = Not Detected above MDL.

Approved By: CB Date: 9/4/03

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2A
Date Sampled: 8/27/03
Analyst: BML
Date Analyzed: 9/3/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-04
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 72
Sample Amount: 30 g

Test Name	Result	MRL	2*MDL
1,1-Biphenyl	ND	0.463	0.0185
1,2,4-Trichlorobenzene	ND	0.463	0.167
1,2-Dichlorobenzene	ND	0.463	0.037
1,3-Dichlorobenzene	ND	0.463	0.0278
1,4-Dichlorobenzene	ND	0.232	0.0278
2,4,5-Trichlorophenol	ND	0.463	0.0185
2,4,6-Trichlorophenol	ND	0.463	0.0278
2,4-Dichlorophenol	ND	0.463	0.0185
2,4-Dimethylphenol	ND	2.31	0.111
2,4-Dinitrophenol	ND	2.31	1.24
2,4-Dinitrotoluene	ND	0.463	0.0185
2,6-Dinitrotoluene	ND	0.463	0.0185
2-Chloronaphthalene	ND	0.463	0.0278
2-Chlorophenol	ND	0.463	0.0278
2-Methylnaphthalene	ND	0.463	0.0278
2-Methylphenol	ND	0.463	0.0278
2-Nitroaniline	ND	0.463	0.0185
2-Nitrophenol	ND	0.463	0.0278
3+4-Methylphenol	ND	0.463	0.0278
3,3´-Dichlorobenzidine	ND	0.926	0.12
3-Nitroaniline	ND	0.463	0.0463
4,6-Dinitro-2-Methylphenol	ND	2.31	0.0278
4-Bromophenyl-phenylether	ND	0.463	0.0278
4-Chloro-3-Methylphenol	ND	0.463	0.0185
4-Chloro-phenyl-phenyl ether	ND	0.463	0.0278
4-Chloroaniline	ND	0.926	0.13
4-Nitroaniline	ND	0.463	0.0278
4-Nitrophenol	ND	2.31	0.0185
Acenaphthene	ND	0.463	0.0278
Acenaphthylene	**0.191 J**	0.463	0.0185
Acetophenone	ND	0.463	0.0278
Aniline	ND	0.463	0.0185
Anthracene	**0.0755 J**	0.463	0.037
Azobenzene	ND	0.463	0.0185
Benzo(a)anthracene	**0.297 J**	0.463	0.037
Benzo(a)pyrene	**0.366 J**	0.463	0.0463
Benzo(b)fluoranthene	**0.424 J**	0.463	0.0463

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Client Project ID: Bay St.
Client Sample ID: 1605-SS2A

ESS Project ID: 03080324
ESS Sample ID: 03080324-04

Test Name	Result	MRL	2*MDL
Benzo(g,h,i)perylene	**0.316 J**	0.463	0.0463
Benzo(k)fluoranthene	**0.367 J**	0.463	0.0926
Benzoic Acid	ND	2.31	0.389
Benzyl Alcohol	ND	0.463	0.0185
bis(2-Chloroethoxy)methane	ND	0.463	0.0185
bis(2-Chloroethyl)ether	ND	0.463	0.0926
bis(2-chloroisopropyl)Ether	ND	0.463	0.0278
bis(2-Ethylhexyl)phthalate	ND	0.463	0.139
Butylbenzylphthalate	ND	0.463	0.0278
Carbazole	ND	0.463	0.0185
Chrysene	**0.375 J**	0.463	0.0556
Di-n-butylphthalate	ND	0.463	0.0278
Di-n-octylphthalate	ND	0.463	0.0185
Dibenzo(a,h)Anthracene	ND	0.463	0.037
Dibenzofuran	ND	0.463	0.0185
Diethylphthalate	ND	0.463	0.0741
Dimethylphthalate	ND	0.463	0.0185
Fluoranthene	**0.459 J**	0.463	0.0556
Fluorene	ND	0.463	0.0185
Hexachlorobenzene	ND	0.463	0.0185
Hexachlorobutadiene	ND	0.463	0.0463
Hexachlorocyclopentadiene	ND	2.31	0.435
Hexachloroethane	ND	0.463	0.0278
Indeno(1,2,3-cd)Pyrene	**0.244 J**	0.463	0.037
Isophorone	ND	0.463	0.0185
N-Nitroso-Di-n-Propylamine	ND	0.463	0.037
N-Nitrosodimethylamine	ND	0.463	0.0185
N-nitrosodiphenylamine	ND	0.463	0.0278
Naphthalene	ND	0.463	0.0278
Nitrobenzene	ND	0.463	0.0278
Pentachlorophenol	ND	2.31	0.0278
Phenanthrene	**0.224 J**	0.463	0.0463
Phenol	ND	0.463	0.0185
Pyrene	**0.68**	0.463	0.0463
Pyridine	ND	2.31	0.0463

J = Reported below MRL; Estimated value.
MDL = Method Detection Limit.
MRL = Method Reporting Limit.

ND = Not Detected above MDL.

Approved By: CB

Date: 9/3/03

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-1
Date Sampled: 8/27/03
Analyst: BML
Date Analyzed: 9/3/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-05
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 84
Sample Amount: 30.2 g

Test Name	Result	MRL
1,1-Biphenyl	ND	0.394
1,2,4-Trichlorobenzene	ND	0.394
1,2-Dichlorobenzene	ND	0.394
1,3-Dichlorobenzene	ND	0.394
1,4-Dichlorobenzene	ND	0.197
2,4,5-Trichlorophenol	ND	0.394
2,4,6-Trichlorophenol	ND	0.394
2,4-Dichlorophenol	ND	0.394
2,4-Dimethylphenol	ND	1.97
2,4-Dinitrophenol	ND	1.97
2,4-Dinitrotoluene	ND	0.394
2,6-Dinitrotoluene	ND	0.394
2-Chloronaphthalene	ND	0.394
2-Chlorophenol	ND	0.394
2-Methylnaphthalene	ND	0.394
2-Methylphenol	ND	0.394
2-Nitroaniline	ND	0.394
2-Nitrophenol	ND	0.394
3+4-Methylphenol	ND	0.394
3,3′-Dichlorobenzidine	ND	0.788
3-Nitroaniline	ND	0.394
4,6-Dinitro-2-Methylphenol	ND	1.97
4-Bromophenyl-phenylether	ND	0.394
4-Chloro-3-Methylphenol	ND	0.394
4-Chloro-phenyl-phenyl ether	ND	0.394
4-Chloroaniline	ND	0.788
4-Nitroaniline	ND	0.394
4-Nitrophenol	ND	1.97
Acenaphthene	ND	0.394
Acenaphthylene	ND	0.394
Acetophenone	ND	0.394
Aniline	ND	0.394
Anthracene	ND	0.394
Azobenzene	ND	0.394
Benzo(a)anthracene	ND	0.394
Benzo(a)pyrene	ND	0.394
Benzo(b)fluoranthene	ND	0.394

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Client Project ID: Bay St.
Client Sample ID: 1605-1

ESS Project ID: 03080324
ESS Sample ID: 03080324-05

Test Name	Result	MRL
Benzo(g,h,i)perylene	ND	0.394
Benzo(k)fluoranthene	ND	0.394
Benzoic Acid	ND	1.97
Benzyl Alcohol	ND	0.394
bis(2-Chloroethoxy)methane	ND	0.394
bis(2-Chloroethyl)ether	ND	0.394
bis(2-chloroisopropyl)Ether	ND	0.394
bis(2-Ethylhexyl)phthalate	ND	0.394
Butylbenzylphthalate	ND	0.394
Carbazole	ND	0.394
Chrysene	ND	0.394
Di-n-butylphthalate	ND	0.394
Di-n-octylphthalate	ND	0.394
Dibenzo(a,h)Anthracene	ND	0.394
Dibenzofuran	ND	0.394
Diethylphthalate	ND	0.394
Dimethylphthalate	ND	0.394
Fluoranthene	ND	0.394
Fluorene	ND	0.394
Hexachlorobenzene	ND	0.394
Hexachlorobutadiene	ND	0.394
Hexachlorocyclopentadiene	ND	1.97
Hexachloroethane	ND	0.394
Indeno(1,2,3-cd)Pyrene	ND	0.394
Isophorone	ND	0.394
N-Nitroso-Di-n-Propylamine	ND	0.394
N-Nitrosodimethylamine	ND	0.394
N-nitrosodiphenylamine	ND	0.394
Naphthalene	ND	0.394
Nitrobenzene	ND	0.394
Pentachlorophenol	ND	1.97
Phenanthrene	ND	0.394
Phenol	ND	0.394
Pyrene	ND	0.394
Pyridine	ND	1.97

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CB

Date: 9/4/03

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS3
Date Sampled: 8/27/03
Analyst: BML
Date Analyzed: 9/3/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-06
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 74
Sample Amount: 30 g

Test Name	Result	MRL	2*MDL
1,1-Biphenyl	ND	0.45	0.018
1,2,4-Trichlorobenzene	ND	0.45	0.162
1,2-Dichlorobenzene	ND	0.45	0.036
1,3-Dichlorobenzene	ND	0.45	0.027
1,4-Dichlorobenzene	ND	0.225	0.027
2,4,5-Trichlorophenol	ND	0.45	0.018
2,4,6-Trichlorophenol	ND	0.45	0.027
2,4-Dichlorophenol	ND	0.45	0.018
2,4-Dimethylphenol	ND	2.25	0.108
2,4-Dinitrophenol	ND	2.25	1.21
2,4-Dinitrotoluene	ND	0.45	0.018
2,6-Dinitrotoluene	ND	0.45	0.018
2-Chloronaphthalene	ND	0.45	0.027
2-Chlorophenol	ND	0.45	0.027
2-Methylnaphthalene	ND	0.45	0.027
2-Methylphenol	ND	0.45	0.027
2-Nitroaniline	ND	0.45	0.018
2-Nitrophenol	ND	0.45	0.027
3+4-Methylphenol	ND	0.45	0.027
3,3´-Dichlorobenzidine	ND	0.901	0.117
3-Nitroaniline	ND	0.45	0.045
4,6-Dinitro-2-Methylphenol	ND	2.25	0.027
4-Bromophenyl-phenylether	ND	0.45	0.027
4-Chloro-3-Methylphenol	ND	0.45	0.018
4-Chloro-phenyl-phenyl ether	ND	0.45	0.027
4-Chloroaniline	ND	0.901	0.126
4-Nitroaniline	ND	0.45	0.027
4-Nitrophenol	ND	2.25	0.018
Acenaphthene	ND	0.45	0.027
Acenaphthylene	**0.0266 J**	0.45	0.018
Acetophenone	ND	0.45	0.027
Aniline	ND	0.45	0.018
Anthracene	**0.0459 J**	0.45	0.036
Azobenzene	ND	0.45	0.018
Benzo(a)anthracene	**0.281 J**	0.45	0.036
Benzo(a)pyrene	**0.336 J**	0.45	0.045
Benzo(b)fluoranthene	**0.486**	0.45	0.045

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Client Project ID: Bay St.
Client Sample ID: 1605-SS3

ESS Project ID: 03080324
ESS Sample ID: 03080324-06

Test Name	Result	MRL	2*MDL
Benzo(g,h,i)perylene	**0.192 J**	0.45	0.045
Benzo(k)fluoranthene	**0.297 J**	0.45	0.0901
Benzoic Acid	ND	2.25	0.378
Benzyl Alcohol	ND	0.45	0.018
bis(2-Chloroethoxy)methane	ND	0.45	0.018
bis(2-Chloroethyl)ether	ND	0.45	0.0901
bis(2-chloroisopropyl)Ether	ND	0.45	0.027
bis(2-Ethylhexyl)phthalate	ND	0.45	0.135
Butylbenzylphthalate	ND	0.45	0.027
Carbazole	ND	0.45	0.018
Chrysene	**0.296 J**	0.45	0.0541
Di-n-butylphthalate	ND	0.45	0.027
Di-n-octylphthalate	ND	0.45	0.018
Dibenzo(a,h)Anthracene	ND	0.45	0.036
Dibenzofuran	ND	0.45	0.018
Diethylphthalate	ND	0.45	0.0721
Dimethylphthalate	ND	0.45	0.018
Fluoranthene	**0.35 J**	0.45	0.0541
Fluorene	ND	0.45	0.018
Hexachlorobenzene	ND	0.45	0.018
Hexachlorobutadiene	ND	0.45	0.045
Hexachlorocyclopentadiene	ND	2.25	0.423
Hexachloroethane	ND	0.45	0.027
Indeno(1,2,3-cd)Pyrene	**0.154 J**	0.45	0.036
Isophorone	ND	0.45	0.018
N-Nitroso-Di-n-Propylamine	ND	0.45	0.036
N-Nitrosodimethylamine	ND	0.45	0.018
N-nitrosodiphenylamine	ND	0.45	0.027
Naphthalene	ND	0.45	0.027
Nitrobenzene	ND	0.45	0.027
Pentachlorophenol	ND	2.25	0.027
Phenanthrene	**0.168 J**	0.45	0.045
Phenol	ND	0.45	0.018
Pyrene	**0.637**	0.45	0.045
Pyridine	ND	2.25	0.045

J = Reported below MRL; Estimated value.
MDL = Method Detection Limit.
MRL = Method Reporting Limit.

ND = Not Detected above MDL.

Approved By: CB

Date: 9/4/03

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2 (felt/leather)
Date Sampled: 8/27/03
Analyst: BML
Date Analyzed: 9/3/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: 03080324-07
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 44
Sample Amount: 30 g

Test Name	Result	MRL	2*MDL
1,1-Biphenyl	ND	0.758	0.0303
1,2,4-Trichlorobenzene	ND	0.758	0.273
1,2-Dichlorobenzene	ND	0.758	0.0606
1,3-Dichlorobenzene	ND	0.758	0.0455
1,4-Dichlorobenzene	ND	0.379	0.0455
2,4,5-Trichlorophenol	ND	0.758	0.0303
2,4,6-Trichlorophenol	ND	0.758	0.0455
2,4-Dichlorophenol	ND	0.758	0.0303
2,4-Dimethylphenol	ND	3.79	0.182
2,4-Dinitrophenol	ND	3.79	2.03
2,4-Dinitrotoluene	ND	0.758	0.0303
2,6-Dinitrotoluene	ND	0.758	0.0303
2-Chloronaphthalene	ND	0.758	0.0455
2-Chlorophenol	ND	0.758	0.0455
2-Methylnaphthalene	ND	0.758	0.0455
2-Methylphenol	ND	0.758	0.0455
2-Nitroaniline	ND	0.758	0.0303
2-Nitrophenol	ND	0.758	0.0455
3+4-Methylphenol	ND	0.758	0.0455
3,3′-Dichlorobenzidine	ND	1.52	0.197
3-Nitroaniline	ND	0.758	0.0758
4,6-Dinitro-2-Methylphenol	ND	3.79	0.0455
4-Bromophenyl-phenylether	ND	0.758	0.0455
4-Chloro-3-Methylphenol	ND	0.758	0.0303
4-Chloro-phenyl-phenyl ether	ND	0.758	0.0455
4-Chloroaniline	ND	1.52	0.212
4-Nitroaniline	ND	0.758	0.0455
4-Nitrophenol	ND	3.79	0.0303
Acenaphthene	**0.0826 J**	0.758	0.0455
Acenaphthylene	**0.133 J**	0.758	0.0303
Acetophenone	ND	0.758	0.0455
Aniline	ND	0.758	0.0303
Anthracene	**0.436 J**	0.758	0.0606
Azobenzene	ND	0.758	0.0303
Benzo(a)anthracene	**1.64**	0.758	0.0606
Benzo(a)pyrene	**1.54**	0.758	0.0758
Benzo(b)fluoranthene	**1.68**	0.758	0.0758

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Client Project ID: Bay St.
Client Sample ID: 1605-SS2 (felt/leather)

ESS Project ID: 03080324
ESS Sample ID: 03080324-07

Test Name	Result	MRL	2*MDL
Benzo(g,h,i)perylene	**1**	0.758	0.0758
Benzo(k)fluoranthene	**1.71**	0.758	0.152
Benzoic Acid	ND	3.79	0.636
Benzyl Alcohol	ND	0.758	0.0303
bis(2-Chloroethoxy)methane	ND	0.758	0.0303
bis(2-Chloroethyl)ether	ND	0.758	0.152
bis(2-chloroisopropyl)Ether	ND	0.758	0.0455
bis(2-Ethylhexyl)phthalate	ND	0.758	0.227
Butylbenzylphthalate	ND	0.758	0.0455
Carbazole	**0.32 J**	0.758	0.0303
Chrysene	**2.23**	0.758	0.0909
Di-n-butylphthalate	ND	0.758	0.0455
Di-n-octylphthalate	ND	0.758	0.0303
Dibenzo(a,h)Anthracene	ND	0.758	0.0606
Dibenzofuran	**0.0833 J**	0.758	0.0303
Diethylphthalate	ND	0.758	0.121
Dimethylphthalate	ND	0.758	0.0303
Fluoranthene	**3.16**	0.758	0.0909
Fluorene	**0.131 J**	0.758	0.0303
Hexachlorobenzene	ND	0.758	0.0303
Hexachlorobutadiene	ND	0.758	0.0758
Hexachlorocyclopentadiene	ND	3.79	0.712
Hexachloroethane	ND	0.758	0.0455
Indeno(1,2,3-cd)Pyrene	**0.878**	0.758	0.0606
Isophorone	ND	0.758	0.0303
N-Nitroso-Di-n-Propylamine	ND	0.758	0.0606
N-Nitrosodimethylamine	ND	0.758	0.0303
N-nitrosodiphenylamine	ND	0.758	0.0455
Naphthalene	**0.0818 J**	0.758	0.0455
Nitrobenzene	ND	0.758	0.0455
Pentachlorophenol	ND	3.79	0.0455
Phenanthrene	**2.48**	0.758	0.0758
Phenol	ND	0.758	0.0303
Pyrene	**9.24**	0.758	0.0758
Pyridine	ND	3.79	0.0758

J = Reported below MRL; Estimated value.
MDL = Method Detection Limit.
MRL = Method Reporting Limit.
ND = Not Detected above MDL.

Approved By: CB Date: 9/4/03

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QUALITY CONTROL SECTION

Total Cyanide Analysis 335.2/9010

042

Date Analyzed: 8/28/03 *Dilution factor based on final dilution volume of: 25 ml

Sample ID	Init Dil.	Ext.vol (ml)	Sample Wt. g or ml	% Solids	ml colored	DF*	Abs	Bkgrd Abs	Conc.	Result	flag	Units	MRL	Dry Wt (X)
Blk					25	1	0.009		0.002	ND		mg/L	0.05	
lcsiw030828a					25	1	0.17		0.108	0.11		mg/L	0.05	
lcsiw030828a					25	1	0.629		0.410	0.41		mg/L	0.05	
03080324-01		50	1	87	25	1	0.019		0.008	ND		mg/Kg	2.9	dry wt
03080324-01		50	1.007	87	25	1	0.022		0.010	ND		mg/Kg	2.9	dry wt
03080324-01		50	1	87	25	1	0.284		0.183	10.5		mg/Kg	2.9	dry wt
03080324-02		50	1.006	85	25	1	0.03		0.016	ND		mg/Kg	2.9	dry wt
03080324-03		50	1.001	72	25	1	0.024		0.012	ND		mg/Kg	3.5	dry wt
03080324-04		50	1.01	72	25	1	0.025		0.012	ND		mg/Kg	3.4	dry wt
03080324-05		50	1.007	84	25	1	0.004		-0.001	ND		mg/Kg	3	dry wt
03080324-06		50	1.001	74	25	1	0.111		0.069	4.7		mg/Kg	3.4	dry wt
03080325-01		50	1.001	78	25	1	0.005		-0.001	ND		mg/Kg	3.2	dry wt
03080325-02		50	1.005	90	25	1	0.004		-0.001	ND		mg/Kg	2.8	dry wt
03080325-03		50	1.004	82	25	1	0.007		0.001	ND		mg/Kg	3	dry wt
03080325-04		50	1.008	81	25	1	0.006		0.000	ND		mg/Kg	3.1	dry wt
03080325-05		50	1	73	25	1	0.004		-0.001	ND		mg/Kg	3.4	dry wt
03080325-06		50	1.004	81	25	1	0.001		-0.003	ND		mg/Kg	3.1	dry wt
03080325-07		50	1.009	77	25	1	0.002		-0.003	ND		mg/Kg	3.2	dry wt
03080325-08		50	1.009	80	25	1	0.003		-0.002	ND		mg/Kg	3.1	dry wt
03080325-09		50	1.007	83	25	1	0.002		-0.003	ND		mg/Kg	3	dry wt
03080325-10		50	1.01	81	25	1	0.005		-0.001	ND		mg/Kg	3.1	dry wt
03080325-11		50	1.007	83	25	1	0.005		-0.001	ND		mg/Kg	3	dry wt
ccv					25	1	0.666		0.434	0.43		mg/L	0.05	
ccv					25	1	0.667		0.435	0.43		mg/L	0.05	
ccb					25	1	0		-0.004	ND		mg/L	0.05	
ccb					25	1	0.001		-0.003	ND		mg/L	0.05	

pgs on following page KMW 8/28/03

Analyst/Date: KMW 8/28/03 2nd Level Rvw/Date: RG 8/28/03

PK 9/2/03

Form 40_0017A

Total Cyanide Analysis 335.2/9010

043

Date Analyzed: 9/16/02 *Dilution factor based on final dilution volume of: 25 ml

QC	Sample ID	Init Dil.	Ext.vol (ml)	Sample Wt. (g)	% Solids	ml colored	DF*	Abs	Bkgrd Abs	Conc.	Result	flag	Units	MRL	Wt (X)
	03080324-01	2/5	50	1	87	25	1	0.399		0.258	14.9		mg/Kg	2.9	dry wt

Analyst/Date: [signature] 8/28/03 2nd Level Rvw/Date: [signature] 8/28/03

Form 40_0017A

Linear Regression Spreadsheet

Analysis: Total Cyanide Analysis 335.2/9010

Analysis Date: 8/28/03

	Conc. (mg/L)	Abs
Blank	0	0.003
Standard1	0.05	0.08
Standard2	0.1	0.166
Standard3	0.2	0.319
Standard4	0.3	0.46
Standard5	0.4	0.586
Standard6	0.5	0.785

Calibration Curve information:

Cal Date: 7/6/03

Slope: 1.51990

Y-intercept: 0.0062

R^2: 0.9973

Cal Std ID: iw030706a

CCV Conc.mg/L: 0.4

2nd Source ID: iw030706b

2nd Source Abs: 0.57

Conc (mg/L): 0.4

Result (mg/L): 0.371

%Recovery: 93

Batch QC Criteria:

Blk< 0.05 mg/L CCV/ICV:90-110% LCS:90-110% Dup:+/-20% Spk:+/-25%

Sample	True value (mg/L)	Result (mg/L)	% Rec
CCV1 -(S1)	0.4	0.434	109
CCV2 -(S2)	0.4	0.435	109
CCV3 -(S3)	0.4		
CCV4 -(S4)	0.4		

Sample	True value (mg/L)	Result (mg/L)	% Rec
LCS1-(L1)	0.1	0.11	110
LCS2 -(L2)	0.4	0.41	103
LCS3 -(L3)	0.4		

Matrix Duplicate and Matrix Spike

Sample ID	Result	Dup Result	% Dev
03080324-01	ND	ND	0

Sample ID	Result	Spike Result	% Rec
03080324-01	ND	10.50	91

Matrix Duplicate and Matrix Spike

Sample ID	Result	Dup Result	% Dev
			0

Sample ID	Result	Spike Result	% Rec

Spiking Solution info:

Conc(mg/L): 5

Volume used(ml): 2

Final volume(ml): 50

Spike Conc. 11.494 mg/Kg dry wt

Spiking Solution info:

Conc(mg/L): 5

Volume used(ml): 2

Final volume(ml): 50

Spike Conc.

QC key- SMP, Dup, Spk

QC key- SMP2, Dup2, Spk2

Analyst/Date: [signature] 8/28/03

2nd Level Rvw/Date: [signature] 8/28/03

Form 40_0005A1

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Method Blank
Date Sampled: N/A
Percent Solid: 100

ESS Project ID: 03080324
ESS Sample ID: 030827pbs
Units: mg/Kg dry weight
GFAA Information: 1/1.5/100
ICP1 Information: 1/1.5/100
Mercury Information: 1/0.6/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	ND	6.67	08/27/03	JP	6010
Antimony	ND	0.333	09/03/03	JP	7041
Arsenic	ND	0.133	09/03/03	JP	7060
Beryllium	ND	0.067	08/27/03	JP	6010
Cadmium	ND	0.667	08/27/03	JP	6010
Chromium	ND	1.33	08/27/03	JP	6010
Copper	ND	1.33	08/27/03	JP	6010
Lead	ND	6.67	08/27/03	JP	6010
Mercury	ND	0.033	08/28/03	JP	7471
Nickel	ND	1.33	08/27/03	JP	6010
Selenium	ND	6.67	08/27/03	JP	6010
Silver	ND	0.667	08/27/03	JP	6010
Thallium	ND	0.333	09/02/03	JP	7841
Zinc	ND	3.33	08/27/03	JP	6010

MRL = Method Reporting Limit. ND = Not Detected above MRL.

Approved By: m Date: 9/3/03

HJL

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Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Laboratory Control Sample
Date Sampled: N/A
Percent Solid: 100

ESS Project ID: 03080324
ESS Sample ID: 030827lcss
Units: mg/Kg dry weight
GFAA Information: 20/1.5/100
ICP1 Information: 1/1.5/100
Mercury Information: 1/0.6/40

Test Name	% Rec.	Limits	Date Analyzed	Analyst	Method
Antimony	**99**	80-120	08/28/03	JP	6010
Antimony	**104**	80-120	09/03/03	JP	7041
Arsenic	**107**	80-120	09/03/03	JP	7060
Beryllium	**100**	80-120	08/28/03	JP	6010
Cadmium	**94**	80-120	08/28/03	JP	6010
Chromium	**100**	80-120	08/28/03	JP	6010
Copper	**99**	80-120	08/28/03	JP	6010
Lead	**102**	80-120	08/28/03	JP	6010
Mercury	**96**	80-120	08/28/03	JP	7471
Selenium	**92**	80-120	08/28/03	JP	6010
Silver	**98**	80-120	08/28/03	JP	6010
Thallium	**105**	80-120	09/02/03	JP	7841
Zinc	**95**	80-120	08/28/03	JP	6010

MRL = Method Reporting Limit. ND = Not Detected above MRL.

Approved By: KP Date: 9/10/03

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Soil Check Standard

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Soil Check Standard
Date Sampled: N/A
Percent Solid: 100

ESS Project ID: 03080324
ESS Sample ID: 030827era
Units: mg/Kg dry weight
GFAA Information: 50/1/100
ICP1 Information: 1/1/100
Mercury Information: 20/0.62/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Antimony	**75.7**	10	08/28/03	JP	6010
Antimony	**88.5**	25	09/03/03	JP	7041
Arsenic	**166**	10	09/03/03	JP	7060
Beryllium	**70.6**	0.1	08/28/03	JP	6010
Cadmium	**247**	1	08/28/03	JP	6010
Chromium	**97.5**	2	08/28/03	JP	6010
Copper	**66**	2	08/28/03	JP	6010
Lead	**75.9**	10	08/28/03	JP	6010
Mercury	**8.05**	0.645	08/28/03	JP	7471
Nickel	**77.6**	2	08/28/03	JP	6010
Selenium	**86.5**	10	08/28/03	JP	6010
Silver	**135**	1	08/28/03	JP	6010
Thallium	**136**	25	09/02/03	JP	7841
Zinc	**123**	5	08/28/03	JP	6010

MRL = Method Reporting Limit. ND = Not Detected above MRL.

Approved By: M Date: 9/3/03

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PriorityPollutnT™/CLP Inorganic Soils - Hot Plate Digestions

Lot No.D037540

Method 3050 HNO_3, H_2O_2, HCl

Parameter	Total Concentration[1]	Certified Value[2]	Performance Acceptance Limits™ [3]
TRACE METALS PriorityPollutnT™ (Catalog No. 540)	mg/Kg	mg/Kg	mg/Kg
Aluminum	55200*	6700	3880 - 9520
Antimony	239	79.5	D.L. - 177 ✓
Arsenic	159	146	115 - 178 ✓
Barium	782*	140	109 - 171
Beryllium	71.7	67.8	54.7 - 80.8 ✓
Boron	104	37.6	8.88 - 66.3
Cadmium	270	244	196 - 293 ✓
Calcium	9750*	3320	2570 - 4080
Chromium	113	99.2	77.9 - 120 ✓
Cobalt	60.3	43.0	33.3 - 52.6
Copper	74.1	70.0	54.5 - 85.4 ✓
Iron	24400*	12300	7050 - 17500
Lead	89.3	72.8	58.2 - 87.3 ✓
Magnesium	3780*	2040	1560 - 2530
Manganese	534	249	190 - 308
Mercury	7.73	8.31	5.14 - 11.5 ✓
Molybdenum	36.5	31.2	24.4 - 38.0
Nickel	95.3	82.4	63.4 - 101 ✓
Potassium	32500*	1920	1370 - 2470
Selenium	93.8	86.5	59.8 - 113 ✓
Silver	140	126	76.0 - 176 ✓
Sodium	14800*	337	187 - 487
Strontium	241	52.2	41.3 - 63.0 ✓
Thallium	128	118	89.2 - 147
Tin	115	61.5	26.2 - 96.8
Titanium	3100*	319	126 - 512
Vanadium	148	107	80.0 - 134 ✓
Zinc	163	138	107 - 169

Method 3050 HNO_3, H_2O_2

Parameter	Total Concentration[1]	Certified Value[2]	Performance Acceptance Limits™ [3]
TRACE METALS PriorityPollutnT™ (Catalog No. 540)	mg/Kg	mg/Kg	mg/Kg
Aluminum	55200*	7310	4230 - 10400
Antimony	239	53.0	D.L. - 155
Arsenic	159	150	115 - 185
Barium	782*	140	110 - 170
Beryllium	71.7	67.3	49.2 - 85.4
Boron	104	39.2	23.7 - 54.6
Cadmium	270	254	197 - 311
Calcium	9750*	3360	2670 - 4050
Chromium	113	101	79.1 - 123
Cobalt	60.3	41.8	33.6 - 50.0
Copper	74.1	69.3	52.3 - 86.3
Iron	24400*	11600	7160 - 16000
Lead	89.3	74.8	58.9 - 90.7
Magnesium	3780*	2110	1570 - 2650
Manganese	534	244	192 - 296
Mercury	7.73	8.31	5.14 - 11.5
Molybdenum	36.5	31.6	22.9 - 40.3
Nickel	95.3	81.8	65.6 - 98.0
Potassium	32500*	2000	1440 - 2560
Selenium	93.8	92.5	69.9 - 115
Silver	140	113	35.0 - 191
Sodium	14800*	334	243 - 425
Strontium	241	52.3	40.5 - 64.0
Thallium	128	130	97.4 - 163
Tin	115	58.4	26.8 - 90.0
Titanium	3100*	288	102 - 475
Vanadium	148	103	78.0 - 128
Zinc	163	131	101 - 161

D037540A

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Duplicate
Date Sampled: 8/27/03
Percent Solid: 87

ESS Project ID: 03080324
ESS Sample ID: 03080324-01 Dup
Units: mg/Kg dry weight
GFAA Information: 5/1.53/100
ICP1 Information: 1/1.53/100
Mercury Information: 10/0.63/40

Test Name	Sample Result	Duplicate Result	RPD	Limits	Date Analyzed	Method
Antimony	ND	ND	0	35	08/28/03	6010
Arsenic	**3.49**	**3.38**	3	35	09/03/03	7060
Beryllium	**0.128**	**0.128**	0	35	08/28/03	6010
Cadmium	ND	ND	0	35	08/28/03	6010
Chromium	**2.99**	**3.03**	1	35	08/28/03	6010
Copper	**7.11**	**6.69**	6	35	08/28/03	6010
Lead	**35.3**	**35.5**	1	35	08/28/03	6010
Mercury	**1.99**	**1.88**	6	35	08/28/03	7471
Nickel	ND	ND	0	35	08/28/03	6010
Selenium	ND	ND	0	35	08/28/03	6010
Silver	ND	ND	0	35	08/28/03	6010
Thallium	ND	ND	0	35	09/02/03	7841
Zinc	**16.8**	**15.4**	9	35	08/28/03	6010

RPD = Relative Percent Deviation.
ND = Not Detected above MRL.

Approved By: JM
Date: 9/3/03

ESS Laboratory Division

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Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Matrix Spike
Date Sampled: 8/27/03
Percent Solid: 87

ESS Project ID: 03080324
ESS Sample ID: 03080324-01 MS
Units: mg/Kg dry weight
GFAA Information: 20/1.51/100
ICP1 Information: 1/1.51/100
Mercury Information: 10/0.64/40

Test Name	Sample Result	Matrix Spike Result	Spike Added	Percent Recovered	Limits	Method
Antimony	ND	**22.4**	38.1	**59+**	75-125	6010
Arsenic	**3.49**	**41.4**	38.1	**100**	75-125	7060
Beryllium	**0.128**	**3.72**	3.8	**94**	75-125	6010
Cadmium	ND	**16.7**	19	**88**	75-125	6010
Chromium	**2.99**	**38.6**	38.1	**94**	75-125	6010
Copper	**7.11**	**41.2**	38.1	**90**	75-125	6010
Lead	**35.3**	**70**	38.1	**91**	75-125	6010
Mercury	**1.99**	**2.29**	0.216	**139+**	75-125	7471
Nickel	ND	**34.5**	38.1	**91**	75-125	6010
Selenium	ND	**66.8**	76.1	**88**	75-125	6010
Silver	ND	**17.3**	19	**91**	75-125	6010
Thallium	ND	**39**	38.1	**102**	75-125	7841
Zinc	**16.8**	**50**	38.1	**87**	75-125	6010

+ = Outside QC Limits.

ND = Not Detected above MRL.

Approved By: m Date: 9/3/03

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050

8100M Total Petroleum Hydrocarbons Surrogate Report

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Bay St. ESS Project ID: 03080324

Lab ID (Dilution Factor)	O-Terphenyl
03080324-01MS (1x)	97
03080324-01MSD (1x)	94
03080324-01 (1x)	96
03080324-02 (1x)	97
03080324-03 (1x)	108
03080324-04 (1x)	91
03080324-05 (1x)	78
03080324-06 (1x)	100
TS082803B1 (1x)	88
TS082803B1BS (1x)	112

Surrogate	Limits
O-Terphenyl	39 - 137

Approved by: CB
ESS Laboratory Division

Date: 9/3/03

MLP

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8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Method Blank
Date Sampled: N/A
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: TS082803B1
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 100
Sample Amount: 30 g

Test Name	Result	MRL
Total Petroleum Hydrocarbons	ND	25

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: CB
ESS Laboratory Division

Date: 9/3/03

MLP

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052

8100M Total Petroleum Hydrocarbons

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Blank Spike
Date Sampled: N/A
Analyst: CLB
Date Analyzed: 8/29/03
Date Prepped: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: TS082803B1BS
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 100
Sample Amount: 30 g

Compound	Spike Added	BS Concentration	BS Percent Recovery	QC Recovery Limits
Total Petroleum Hydrocarbons	666	**508**	76	50-150

ND = Not Detected above MRL.

Approved By: CLB
ESS Laboratory Division

Date: 9/3/03

MLP

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8100M Total Petroleum Hydrocarbons
Matrix Spike Report

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MS

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MS
Units: mg/Kg dry weight

Compound Name	Sample Result	MS Conc.	Spike Added	MS % Recovery	Recovery Limits
Total Petroleum Hydrocarbons	ND	748	781	96	50-150

Approved By: aB
ESS Laboratory Division

Date: 9/3/03

MLP

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8100M Total Petroleum Hydrocarbons
Matrix Spike Duplicate Report

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MSD

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MSD
Units: mg/Kg dry weight

Compound Name	Sample Result	MSD Conc.	Spike Added	MSD % Recovery	RPD	Recovery Limits	RPD Limits
Total Petroleum Hydrocarbons	ND	751	781	96	0	50-150	50

RPD = Relative Percent Deviation.

Approved By: CB
ESS Laboratory Division

Date: 9/3/03

MLP

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EPA Methods 5035/8260B Surrogate Report

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Bay St. ESS Project ID: 03080324

Lab ID (Dilution Factor)	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
03080324-01MS (1x)	89	89	82
03080324-01MSD (1x)	93	95	87
03080324-01 (1x)	78	86	81
03080324-02 (1x)	78	84	80
03080324-03 (1x)	81	86	80
03080324-04 (1x)	74	81	75
03080324-05 (1x)	80	87	81
03080324-06 (1x)	79	85	79
VHMA082803B1 (1x)	85	92	88
VHMA082803C1 (1x)	88	86	93

Surrogate	Limits
1,2-Dichloroethane-d4	70 - 130
Toluene-d8	70 - 130
4-Bromofluorobenzene	70 - 130

Approved by: _____ Date: 9/3/03
ESS Laboratory Division

MLP

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EPA Methods 5035/8260B
Methanol Extraction

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Method Blank
Date Sampled: N/A
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: VHMA082803B1
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 100
Sample Amount: 15 g

Test Name	Result	MRL
Benzene	ND	0.05
Ethylbenzene	ND	0.05
Toluene	ND	0.05
Xylenes (Total)	ND	0.1

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: MD
ESS Laboratory Division

Date: 9/2/03

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EPA Methods 5035/8260B

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Laboratory Control Sample
Date Sampled: N/A
Analyst: MD
Date Analyzed: 8/28/03

ESS Project ID: 03080324
ESS Sample ID: VHMA082803C1
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 100
Sample Amount: 15 g

Compound	Spike Added	LCS Concentration	LCS Percent Recovery	QC Recovery Limits
Benzene	2.5	**2.39**	96	70-130
Ethylbenzene	2.5	**2.33**	93	70-130
Toluene	2.5	**2.36**	94	70-130
Xylenes (Total)	7.5	**7.07**	94	70-130

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: MD Date: 9/2/03

ESS Laboratory Division

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EPA Methods 5035/8260B
Matrix Spike Report

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MS

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MS
Units: mg/Kg dry weight

Compound Name	Sample Result	MS Conc.	Spike Added	MS % Recovery	Recovery Limits
Benzene	ND	2.12	2.08	102	70-130
Ethylbenzene	ND	1.99	2.08	96	70-130
Toluene	ND	2.03	2.08	98	70-130
Xylene O	ND	2.01	2.08	97	70-130
Xylene P,M	ND	4.06	4.16	98	70-130
Xylenes (Total)	ND	6.07	6.24	97	70-130

Approved By: _____ Date: 9/23

ESS Laboratory Division

MLP

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EPA Methods 5035/8260B
Matrix Spike Duplicate Report

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MSD

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MSD
Units: mg/Kg dry weight

Compound Name	Sample Result	MSD Conc.	Spike Added	MSD % Recovery	RPD	Recovery Limits	RPD Limits
Benzene	ND	2.08	2.08	100	2	70-130	20
Ethylbenzene	ND	1.98	2.08	95	1	70-130	20
Toluene	ND	2	2.08	96	1	70-130	20
Xylene O	ND	2	2.08	96	0	70-130	20
Xylene P,M	ND	4.01	4.16	96	1	70-130	20
Xylenes (Total)	ND	6.01	6.24	96	1	70-130	20

RPD = Relative Percent Deviation.

Approved By: MD
ESS Laboratory Division

Date: 9/2/03

MLP

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EPA Method 8270C Surrogate Report

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Bay St. ESS Project ID: 03080324

Lab ID (Dilution Factor)	2FP	PHL	2CP	DCB	NBZ	FBP	TBP	TPH
03080324-01MS (1x)	83	84	79	80	69	88	98	107
03080324-01MSD (1x)	78	84	81	78	65	89	99	104
03080324-01 (1x)	69	72	74	71	76	79	83	106
03080324-02 (1x)	72	78	81	80	77	87	88	106
03080324-03 (1x)	78	86	88	93	88	107	99	117
03080324-04 (1x)	74	80	85	87	85	99	100	115
03080324-05 (1x)	82	88	88	91	86	101	90	96
03080324-06 (1x)	67	73	79	81	80	99	93	143+
03080324-07 (1x)	75	78	87	91	87	100	104	194+

+ = Outside QC Limits.

Surrogate	Limits
2FP = 2-Fluorophenol	30 - 130
PHL = Phenol-d5	30 - 130
2CP = 2-Chlorophenol-d4	30 - 130
DCB = 1,2 Dichlorobenzene-d4	30 - 130
NBZ = Nitrobenzene-d5	30 - 130
FBP = 2-Fluorobiphenyl	30 - 130
TBP = 1,2,6-Tribromophenol	30 - 130
TPH = p-Terphenyl-d14	30 - 130

Approved by: AB Date: 9/4/03

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EPA Method 8270C Surrogate Report

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Bay St. ESS Project ID: 03080324

Lab ID (Dilution Factor)	2FP	PHL	2CP	DCB	NBZ	FBP	TBP	TPH
SS082703B3 (1x)	90	98	89	85	117	98	86	94
SS082703B3BS (1x)	83	86	81	77	79	90	92	85

Surrogate	Limits
2FP = 2-Fluorophenol	30 - 130
PHL = Phenol-d5	30 - 130
2CP = 2-Chlorophenol-d4	30 - 130
DCB = 1,2 Dichlorobenzene-d4	30 - 130
NBZ = Nitrobenzene-d5	30 - 130
FBP = 2-Fluorobiphenyl	30 - 130
TBP = 1,2,6-Tribromophenol	30 - 130
TPH = p-Terphenyl-d14	30 - 130

Approved by: CB Date: 9/4/03

ESS Laboratory Division Page 1 of 1 MDP

EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Method Blank
Date Sampled: N/A
Analyst: BML
Date Analyzed: 8/28/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: SS082703B3
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 100
Sample Amount: 30 g

Test Name	Result	MRL	2*MDL
1,1-Biphenyl	ND	0.333	0.0133
1,2,4-Trichlorobenzene	ND	0.333	0.0133
1,2-Dichlorobenzene	ND	0.333	0.02
1,3-Dichlorobenzene	ND	0.333	0.0133
1,4-Dichlorobenzene	ND	0.167	0.02
2,4,5-Trichlorophenol	ND	0.333	0.02
2,4,6-Trichlorophenol	ND	0.333	0.02
2,4-Dichlorophenol	ND	0.333	0.02
2,4-Dimethylphenol	ND	0.333	0.0533
2,4-Dinitrophenol	ND	1.67	0.0133
2,4-Dinitrotoluene	ND	0.333	0.0067
2,6-Dinitrotoluene	ND	0.333	0.02
2-Chloronaphthalene	ND	0.333	0.0133
2-Chlorophenol	ND	0.333	0.0133
2-Methylnaphthalene	ND	0.333	0.0133
2-Methylphenol	ND	0.333	0.02
2-Nitroaniline	ND	0.333	0.0067
2-Nitrophenol	ND	0.333	0.0133
3+4-Methylphenol	ND	0.333	0.0133
3,3′-Dichlorobenzidine	ND	0.667	0.0667
3-Nitroaniline	ND	0.333	0.02
4,6-Dinitro-2-Methylphenol	ND	1.67	0.0333
4-Bromophenyl-phenylether	ND	0.333	0.0133
4-Chloro-3-Methylphenol	ND	0.333	0.0133
4-Chloro-phenyl-phenyl ether	ND	0.333	0.02
4-Chloroaniline	ND	0.667	0.06
4-Nitroaniline	ND	0.333	0.0133
4-Nitrophenol	ND	1.67	0.0267
Acenaphthene	ND	0.333	0.0133
Acenaphthylene	ND	0.333	0.0133
Acetophenone	ND	0.333	0.0067
Aniline	ND	0.333	0.0467
Anthracene	ND	0.333	0.0133
Azobenzene	ND	0.333	0.0267
Benzo(a)anthracene	ND	0.333	0.04
Benzo(a)pyrene	ND	0.333	0.0267
Benzo(b)fluoranthene	ND	0.333	0.0533

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Client Project ID: Bay St.
Client Sample ID: Method Blank

ESS Project ID: 03080324
ESS Sample ID: SS082703B3

Test Name	Result	MRL	2*MDL
Benzo(g,h,i)perylene	ND	0.333	0.2
Benzo(k)fluoranthene	ND	0.333	0.0333
Benzoic Acid	ND	1.67	0.44
Benzyl Alcohol	ND	0.333	0.02
bis(2-Chloroethoxy)methane	ND	0.333	0.02
bis(2-Chloroethyl)ether	ND	0.333	0.0133
bis(2-chloroisopropyl)Ether	ND	0.333	0.0133
bis(2-Ethylhexyl)phthalate	ND	0.333	0.0933
Butylbenzylphthalate	ND	0.333	0.0133
Carbazole	ND	0.333	0.0133
Chrysene	ND	0.333	0.04
Di-n-butylphthalate	ND	0.333	0.0133
Di-n-octylphthalate	ND	0.333	0.02
Dibenzo(a,h)Anthracene	ND	0.333	0.0333
Dibenzofuran	ND	0.333	0.0133
Diethylphthalate	ND	0.333	0.0533
Dimethylphthalate	ND	0.333	0.0133
Fluoranthene	ND	0.333	0.04
Fluorene	ND	0.333	0.0133
Hexachlorobenzene	ND	0.333	0.02
Hexachlorobutadiene	ND	0.333	0.02
Hexachlorocyclopentadiene	ND	1.67	0.02
Hexachloroethane	ND	0.167	0.0133
Indeno(1,2,3-cd)Pyrene	ND	0.333	0.173
Isophorone	ND	0.333	0.0067
N-Nitroso-Di-n-Propylamine	ND	0.333	0.0533
N-Nitrosodimethylamine	ND	0.333	0.0067
N-nitrosodiphenylamine	ND	0.333	0.0133
Naphthalene	ND	0.333	0.0133
Nitrobenzene	ND	0.333	0.0133
Pentachlorophenol	ND	1.67	0.0933
Phenanthrene	ND	0.333	0.0133
Phenol	ND	0.333	0.0133
Pyrene	ND	0.333	0.0267
Pyridine	ND	1.67	0.04

MDL = Method Detection Limit.
MRL = Method Reporting Limit.

ND = Not Detected above MDL.

Approved By: AB Date: 9/4/03

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EPA Method 8270C

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Blank Spike
Date Sampled: N/A
Analyst: BML
Date Analyzed: 8/28/03
Date Prepped: 8/27/03

ESS Project ID: 03080324
ESS Sample ID: SS082703B3BS
Units: mg/Kg dry weight
Dilution: 1
Percent Solid: 100
Sample Amount: 30 g

Compound	Spike Added	BS Concentration	BS Percent Recovery	QC Recovery Limits
1,1-Biphenyl	3.33	**2.78**	83	40-140
1,2,4-Trichlorobenzene	3.33	**2.72**	82	40-140
1,2-Dichlorobenzene	3.33	**2.71**	81	40-140
1,3-Dichlorobenzene	3.33	**2.45**	74	40-140
1,4-Dichlorobenzene	3.33	**2.72**	82	40-140
2,4,5-Trichlorophenol	3.33	**3.35**	101	30-130
2,4,6-Trichlorophenol	3.33	**3.14**	94	30-130
2,4-Dichlorophenol	3.33	**2.58**	77	30-130
2,4-Dimethylphenol	3.33	**2.44**	73	30-130
2,4-Dinitrophenol	3.33	**3.38**	102	30-130
2,4-Dinitrotoluene	3.33	**3.45**	104	40-140
2,6-Dinitrotoluene	3.33	**3.44**	103	40-140
2-Chloronaphthalene	3.33	**2.97**	89	40-140
2-Chlorophenol	3.33	**2.71**	81	30-130
2-Methylnaphthalene	3.33	**2.13**	64	40-140
2-Methylphenol	3.33	**3.01**	90	30-130
2-Nitroaniline	3.33	**2.98**	89	40-140
2-Nitrophenol	3.33	**2.46**	74	30-130
3+4-Methylphenol	3.33	**3.09**	93	30-130
3,3´-Dichlorobenzidine	3.33	**2.46**	74	40-140
3-Nitroaniline	3.33	**2.7**	81	40-140
4,6-Dinitro-2-Methylphenol	3.33	**3.44**	103	30-130
4-Bromophenyl-phenylether	3.33	**2.85**	86	40-140
4-Chloro-3-Methylphenol	3.33	**2.42**	73	30-130
4-Chloro-phenyl-phenyl ether	3.33	**3.15**	95	40-140
4-Chloroaniline	3.33	**1.86**	56	40-140
4-Nitroaniline	3.33	**2.38**	71	40-140
4-Nitrophenol	3.33	**2.75**	83	30-130
Acenaphthene	3.33	**2.85**	86	40-140
Acenaphthylene	3.33	**2.12**	64	40-140
Anthracene	3.33	**3.13**	94	40-140
Azobenzene	3.33	**3.17**	95	40-140
Benzo(a)anthracene	3.33	**3.3**	99	40-140
Benzo(a)pyrene	3.33	**3.07**	92	40-140

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Certificate of Analysis

Client Project ID: Bay St.
Client Sample ID: Blank Spike

ESS Project ID: 03080324
ESS Sample ID: SS082703B3BS

Compound	Spike Added	BS Concentration	BS Percent Recovery	QC Recovery Limits
Benzo(b)fluoranthene	3.33	**3.44**	103	40-140
Benzo(g,h,i)perylene	3.33	**2.96**	89	40-140
Benzo(k)fluoranthene	3.33	**3.09**	93	40-140
Benzoic Acid	3.33	**1.99**	60	30-130
Benzyl Alcohol	3.33	**2.93**	88	40-140
bis(2-Chloroethoxy)methane	3.33	**2.56**	77	40-140
bis(2-Chloroethyl)ether	3.33	**2.64**	79	40-140
bis(2-chloroisopropyl)Ether	3.33	**2.74**	82	40-140
bis(2-Ethylhexyl)phthalate	3.33	**3.68**	111	40-140
Butylbenzylphthalate	3.33	**3.34**	100	40-140
Carbazole	3.33	**3.01**	90	40-140
Chrysene	3.33	**3.53**	106	40-140
Di-n-butylphthalate	3.33	**2.9**	87	40-140
Di-n-octylphthalate	3.33	**3.44**	103	40-140
Dibenzo(a,h)Anthracene	3.33	**2.95**	89	40-140
Dibenzofuran	3.33	**3.04**	91	40-140
Diethylphthalate	3.33	**3.11**	93	40-140
Dimethylphthalate	3.33	**3.2**	96	40-140
Fluoranthene	3.33	**3.06**	92	40-140
Fluorene	3.33	**3.21**	96	40-140
Hexachlorobenzene	3.33	**3.04**	91	40-140
Hexachlorobutadiene	3.33	**2.43**	73	40-140
Hexachlorocyclopentadiene	3.33	**1.63 J**	49	40-140
Hexachloroethane	3.33	**2.78**	83	40-140
Indeno(1,2,3-cd)Pyrene	3.33	**3**	90	40-140
Isophorone	3.33	**2.61**	78	40-140
N-Nitroso-Di-n-Propylamine	3.33	**2.88**	86	40-140
N-Nitrosodimethylamine	3.33	**1.88**	56	40-140
N-nitrosodiphenylamine	3.33	**2.57**	77	40-140
Naphthalene	3.33	**2.3**	69	40-140
Nitrobenzene	3.33	**2.57**	77	40-140
Pentachlorophenol	3.33	**2.66**	80	30-130
Phenanthrene	3.33	**3.18**	95	40-140
Phenol	3.33	**3.01**	90	30-130
Pyrene	3.33	**3.14**	94	40-140
Pyridine	3.33	**1.61 J**	48	40-140

J = Reported below MRL; Estimated value.

ND = Not Detected above MDL.

Approved By: CB Date: 9/4/03

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EPA Method 8270C
Matrix Spike Report

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MS

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MS
Units: mg/Kg dry weight

Compound Name	Sample Result	MS Conc.	Spike Added	MS % Recovery	Recovery Limits
1,1-Biphenyl	ND	3.55	3.83	93	40-140
1,2,4-Trichlorobenzene	ND	2.79	3.83	73	40-140
1,2-Dichlorobenzene	ND	3.2	3.83	84	40-140
1,3-Dichlorobenzene	ND	3.11	3.83	81	40-140
1,4-Dichlorobenzene	ND	3.16	3.83	83	40-140
2,4,5-Trichlorophenol	ND	3.95	3.83	103	30-130
2,4,6-Trichlorophenol	ND	3.67	3.83	96	30-130
2,4-Dichlorophenol	ND	3.08	3.83	80	30-130
2,4-Dimethylphenol	ND	2.84	3.83	74	30-130
2,4-Dinitrophenol	ND	1.42	3.83	37	30-130
2,4-Dinitrotoluene	ND	3.89	3.83	102	40-140
2,6-Dinitrotoluene	ND	3.74	3.83	98	40-140
2-Chloronaphthalene	ND	3.53	3.83	92	40-140
2-Chlorophenol	ND	3.12	3.83	81	30-130
2-Methylnaphthalene	ND	2.85	3.83	74	40-140
2-Methylphenol	ND	3.37	3.83	88	30-130
2-Nitroaniline	ND	3.96	3.83	103	40-140
2-Nitrophenol	ND	2.73	3.83	71	30-130
3+4-Methylphenol	ND	3.34	3.83	87	30-130
3,3'-Dichlorobenzidine	ND	3.41	3.83	89	40-140
3-Nitroaniline	ND	2.98	3.83	78	40-140
4,6-Dinitro-2-Methylphenol	ND	2.26	3.83	59	30-130
4-Bromophenyl-phenylether	ND	4.11	3.83	107	40-140
4-Chloro-3-Methylphenol	ND	3	3.83	78	30-130
4-Chloro-phenyl-phenyl ether	ND	3.67	3.83	96	40-140
4-Chloroaniline	ND	2.3	3.83	60	40-140
4-Nitroaniline	ND	3.38	3.83	88	40-140
4-Nitrophenol	ND	3.79	3.83	99	30-130
Acenaphthene	ND	3.56	3.83	93	40-140
Acenaphthylene	ND	2.77	3.83	72	40-140
Anthracene	ND	3.73	3.83	97	40-140
Azobenzene	ND	3.99	3.83	104	40-140
Benzo(a)anthracene	0.922	4.52	3.83	94	40-140
Benzo(a)pyrene	0.858	4.03	3.83	83	40-140
Benzo(b)fluoranthene	1.02	4.59	3.83	93	40-140
Benzo(g,h,i)perylene	0.423	2.7	3.83	59	40-140
Benzo(k)fluoranthene	0.69	5.4	3.83	123	40-140
Benzoic Acid	ND	2.28	3.83	60	30-130

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EPA Method 8270C
Matrix Spike Report Continued

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MS

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MS
Units: mg/Kg dry weight

Compound Name	Sample Result	MS Conc.	Spike Added	MS % Recovery	Recovery Limits
Benzyl Alcohol	ND	3.59	3.83	94	40-140
bis(2-Chloroethoxy)methane	ND	2.73	3.83	71	40-140
bis(2-Chloroethyl)ether	ND	3.61	3.83	94	40-140
bis(2-chloroisopropyl)Ether	ND	3.26	3.83	85	40-140
bis(2-Ethylhexyl)phthalate	ND	3.58	3.83	93	40-140
Butylbenzylphthalate	ND	4.03	3.83	105	40-140
Carbazole	ND	3.89	3.83	102	40-140
Chrysene	1.06	4.86	3.83	99	40-140
Di-n-butylphthalate	ND	3.73	3.83	97	40-140
Di-n-octylphthalate	ND	4.31	3.83	113	40-140
Dibenzo(a,h)Anthracene	ND	2.93	3.83	77	40-140
Dibenzofuran	ND	3.51	3.83	92	40-140
Diethylphthalate	ND	3.69	3.83	96	40-140
Dimethylphthalate	ND	3.72	3.83	97	40-140
Fluoranthene	1.65	5.03	3.83	88	40-140
Fluorene	ND	3.67	3.83	96	40-140
Hexachlorobenzene	ND	4.1	3.83	107	40-140
Hexachlorobutadiene	ND	2.69	3.83	70	40-140
Hexachlorocyclopentadiene	ND	0.48	3.83	13+	40-140
Hexachloroethane	ND	3	3.83	78	40-140
Indeno(1,2,3-cd)Pyrene	ND	2.97	3.83	78	40-140
Isophorone	ND	2.86	3.83	75	40-140
N-Nitroso-Di-n-Propylamine	ND	3.4	3.83	89	40-140
N-Nitrosodimethylamine	ND	1.43	3.83	37+	40-140
N-nitrosodiphenylamine	ND	3.32	3.83	87	40-140
Naphthalene	ND	2.62	3.83	68	40-140
Nitrobenzene	ND	2.73	3.83	71	40-140
Pentachlorophenol	ND	2.99	3.83	78	30-130
Phenanthrene	0.626	4.07	3.83	90	40-140
Phenol	ND	3.44	3.83	90	30-130
Pyrene	2.21	5.68	3.83	91	40-140
Pyridine	ND	1.09	3.83	28+	40-140

+ = Outside QC Limits.

Approved By: CB Date: 9/4/03

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EPA Method 8270C
Matrix Spike Duplicate Report

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MSD

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MSD
Units: mg/Kg dry weight

Compound Name	Sample Result	MSD Conc.	Spike Added	MSD % Recovery	RPD	Recovery Limits	RPD Limits
1,1-Biphenyl	ND	3.6	3.83	94	1	40-140	30
1,2,4-Trichlorobenzene	ND	2.7	3.83	70	3	40-140	30
1,2-Dichlorobenzene	ND	3.13	3.83	82	2	40-140	30
1,3-Dichlorobenzene	ND	3	3.83	78	4	40-140	30
1,4-Dichlorobenzene	ND	3.16	3.83	83	0	40-140	30
2,4,5-Trichlorophenol	ND	3.87	3.83	101	2	30-130	30
2,4,6-Trichlorophenol	ND	3.6	3.83	94	2	30-130	30
2,4-Dichlorophenol	ND	2.9	3.83	76	6	30-130	30
2,4-Dimethylphenol	ND	2.67	3.83	70	6	30-130	30
2,4-Dinitrophenol	ND	1.36	3.83	36	4	30-130	30
2,4-Dinitrotoluene	ND	3.64	3.83	95	7	40-140	30
2,6-Dinitrotoluene	ND	3.58	3.83	93	4	40-140	30
2-Chloronaphthalene	ND	3.52	3.83	92	0	40-140	30
2-Chlorophenol	ND	3.11	3.83	81	0	30-130	30
2-Methylnaphthalene	ND	2.74	3.83	72	4	40-140	30
2-Methylphenol	ND	3.3	3.83	86	2	30-130	30
2-Nitroaniline	ND	3.84	3.83	100	3	40-140	30
2-Nitrophenol	ND	2.68	3.83	70	2	30-130	30
3+4-Methylphenol	ND	3.35	3.83	87	0	30-130	30
3,3'-Dichlorobenzidine	ND	3.26	3.83	85	4	40-140	30
3-Nitroaniline	ND	2.92	3.83	76	2	40-140	30
4,6-Dinitro-2-Methylphenol	ND	2.14	3.83	56	5	30-130	30
4-Bromophenyl-phenylether	ND	3.96	3.83	103	4	40-140	30
4-Chloro-3-Methylphenol	ND	2.86	3.83	75	5	30-130	30
4-Chloro-phenyl-phenyl ether	ND	3.64	3.83	95	1	40-140	30
4-Chloroaniline	ND	2.16	3.83	56	6	40-140	30
4-Nitroaniline	ND	3.32	3.83	87	2	40-140	30
4-Nitrophenol	ND	3.62	3.83	95	5	30-130	30
Acenaphthene	ND	3.57	3.83	93	0	40-140	30
Acenaphthylene	ND	2.7	3.83	70	3	40-140	30
Anthracene	ND	4.07	3.83	106	9	40-140	30
Azobenzene	ND	3.9	3.83	102	2	40-140	30
Benzo(a)anthracene	0.922	5.35	3.83	116	17	40-140	30
Benzo(a)pyrene	0.858	4.83	3.83	104	18	40-140	30
Benzo(b)fluoranthene	1.02	5.75	3.83	123	22	40-140	30
Benzo(g,h,i)perylene	0.423	3.14	3.83	71	15	40-140	30
Benzo(k)fluoranthene	0.69	4.75	3.83	106	13	40-140	30
Benzoic Acid	ND	2.15	3.83	56	6	30-130	30

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EPA Method 8270C
Matrix Spike Duplicate Report Continued

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS1MSD

ESS Project ID: 03080324
ESS Sample ID: 03080324-01MSD
Units: mg/Kg dry weight

Compound Name	Sample Result	MSD Conc.	Spike Added	MSD % Recovery	RPD	Recovery Limits	RPD Limits
Benzyl Alcohol	ND	3.49	3.83	91	3	40-140	30
bis(2-Chloroethoxy)methane	ND	2.6	3.83	68	5	40-140	30
bis(2-Chloroethyl)ether	ND	3.32	3.83	87	8	40-140	30
bis(2-chloroisopropyl)Ether	ND	3.26	3.83	85	0	40-140	30
bis(2-Ethylhexyl)phthalate	ND	3.5	3.83	91	2	40-140	30
Butylbenzylphthalate	ND	3.91	3.83	102	3	40-140	30
Carbazole	ND	3.96	3.83	103	2	40-140	30
Chrysene	1.06	5.87	3.83	126	19	40-140	30
Di-n-butylphthalate	ND	3.51	3.83	92	6	40-140	30
Di-n-octylphthalate	ND	3.85	3.83	101	11	40-140	30
Dibenzo(a,h)Anthracene	ND	3.08	3.83	80	5	40-140	30
Dibenzofuran	ND	3.47	3.83	91	1	40-140	30
Diethylphthalate	ND	3.6	3.83	94	2	40-140	30
Dimethylphthalate	ND	3.5	3.83	91	6	40-140	30
Fluoranthene	1.65	7.26	3.83	146+	36+	40-140	30
Fluorene	ND	3.79	3.83	99	3	40-140	30
Hexachlorobenzene	ND	3.97	3.83	104	3	40-140	30
Hexachlorobutadiene	ND	2.68	3.83	70	0	40-140	30
Hexachlorocyclopentadiene	ND	0.41	3.83	11+	16	40-140	30
Hexachloroethane	ND	2.87	3.83	75	4	40-140	30
Indeno(1,2,3-cd)Pyrene	ND	3.4	3.83	89	14	40-140	30
Isophorone	ND	2.75	3.83	72	4	40-140	30
N-Nitroso-Di-n-Propylamine	ND	3.32	3.83	87	2	40-140	30
N-Nitrosodimethylamine	ND	1.38	3.83	36+	4	40-140	30
N-nitrosodiphenylamine	ND	3.32	3.83	87	0	40-140	30
Naphthalene	ND	2.59	3.83	68	1	40-140	30
Nitrobenzene	ND	2.59	3.83	68	5	40-140	30
Pentachlorophenol	ND	2.96	3.83	77	1	30-130	30
Phenanthrene	0.626	5.97	3.83	140	38+	40-140	30
Phenol	ND	3.47	3.83	91	1	30-130	30
Pyrene	2.21	9.5	3.83	190+	50+	40-140	30
Pyridine	ND	1.25	3.83	33+	14	40-140	30

+ = Outside QC Limits. RPD = Relative Percent Deviation.

Approved By: CLB Date: 9/4/03

ESS Laboratory Division

MDP

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070

ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Connecticut: PH-0750

Maine: RI002

Maryland: 301
Potable Water

Massachusetts: M-RI002

New Hampshire (NELAP):
Drinking Water: 242400-C
Wastewater: 242400-D

New Jersey (NELAP) RI002
Potable Water
Non Potable Water
Solid and Hazardous Waste

New York (NELAP): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

North Carolina: 44701
Potable Water(Organics)

Pennsylvania: 68-934

Rhode Island: 179

United States Department of Agriculture
Soil Permit: S-54210

ESS Laboratory

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CHAIN OF CUSTODY

Page 1 of 1

Turn Time ___ Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
MA RI CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP* Navy USACE Other _____

Reporting Limits

ESS LAB PROJECT ID: 03080324

Electronic Deliverable
___ Yes ___ No Format _____

Co. Name: VHB
Project #: 71512
Project Name (20 Char. or less): Bay St.
Contact Person: Claude Masse
Address: 530 Broadway
City: Providence State: RI Zip: 02909 PO#: 71512
Telephone #: 272-8100 Fax #: 273-9694 Email Address: cmasse@vhb.com

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260 624 524.2	8021 MTBE/BTEX	VPH 8015 GRO	8100 EPH 8015 DRO	No Targets EPH	8081 Pesticides 8082 PCB 608 Pesticides 608 PCB	8270 625 PAH only	RCRA8 RCRA5 TAL23 (PP13)	TCLP8 MCP MCPw/Hg NBC7	Total Cyanide
1	8/27/03	1102	X	X	S	1605-SS1 (MS/MSD)	6	G/V		X	X		X		X	X		X
2	↓	1114	X	X	↓	1605-SS1A	3	↓		↓	↓		↓		↓	↓		↓
3		1134	X	X		1605-SS2	↓											
4		1140	X	X		1605-SS2A												
5		1156		X		1605-1												
6		1158	X	X		1605-SS3	↓	↓		↓	↓		↓		↓	↓		↓
7	↓	1140		X	↓	1605-SS2 (felt/leather)	1	G							X	X		

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ✓
Cooler Temp: 4.5°c

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Comments: Samples Id'd as comp + grab - VOAs are grab.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Claude Masse	8/27/03 15:22	Ralph Baker	8/27/03 15:22	Ralph Baker	8/27/03 15:52	[signature]	1552 8/27/03
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

PROJECT NARRATIVE

CLIENT: Vanasse Hangen Brustlin, Inc.
CLIENT PROJECT ID: Bay St.
ESS PROJECT ID: 03090171

Sample Receipt
1 Soil sample, which was originally received on August 27, 2003 as ESS Laboratory project 03080324, was relogged on September 19, 2003 as ESS Laboratory project 03090171 for the analysis specified on the enclosed Chain of Custody Record.

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results.

No unusual observations noted.

This signed Certificate of Analysis is our approved release of your analytical results. Beginning with this Project Narrative, the entire report has been paginated. The Chain of Custody is the final report page. This report should not be copied except in full without the approval of the laboratory.

End of project narrative.

Laurel Stoddard/Eric Baanante — Date 9/26/03
Laboratory Director/Operations Manager

HJL

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2 Felt
Date Sampled: 8/27/03
Percent Solid: N/A

ESS Project ID: 03090171
ESS Sample ID: 03090171-01
Units: mg/Kg
Mercury Information: 10000/0.69/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Mercury	**3890 ***	290	09/11/03	JP	7471

* = Result and MRL based on 10000x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: [signature] Date: 9/18/03

HJL

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Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: 1605-SS2 Soil
Date Sampled: 8/27/03
Percent Solid: 44

ESS Project ID: 03090171
ESS Sample ID: 03090171-02
Units: mg/Kg dry weight
Mercury Information: 1000/0.61/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Mercury	**1290 ***	74.5	09/11/03	JP	7471

* = Result and MRL based on 1000x dilution.
MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: [signature]

Date: 9/18/03

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QUALITY CONTROL SECTION

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Method Blank
Date Sampled: N/A
Percent Solid: 100

ESS Project ID: 03090171
ESS Sample ID: 030910pbs
Units: mg/Kg dry weight
Mercury Information: 1/0.6/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Mercury	ND	0.033	09/11/03	JP	7471

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: [signature]

Date: 9/8/03

HJL

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Certificate of Analysis

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Laboratory Control Sample
Date Sampled: N/A
Percent Solid: 100

ESS Project ID: 03090171
ESS Sample ID: 030910lcss
Units: mg/Kg dry weight
Mercury Information: 1/0.6/40

Test Name	% Rec.	Limits	Date Analyzed	Analyst	Method
Mercury	97	80-120	09/11/03	JP	7471

MRL = Method Reporting Limit.

ND = Not Detected above MRL.

Approved By: [signature]

Date: 9/18/03

ESS Laboratory Division

HJL

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Certificate of Analysis

Soil Check Standard

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Soil Check Standard
Date Sampled: N/A
Percent Solid: 100

ESS Project ID: 03090171
ESS Sample ID: 030910era
Units: mg/Kg dry weight
Mercury Information: 20/0.66/40

Test Name	Result	MRL	Date Analyzed	Analyst	Method
Mercury	**9.09**	0.606	09/11/03	JP	7471

MRL = Method Reporting Limit. ND = Not Detected above MRL.

Approved By: [signature] Date: 9/18/03

HJL

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PriorityPollutnT™/CLP Inorganic Soils - Hot Plate Digestions

Lot No.D037540

Method 3050 HNO_3, H_2O_2, HCl

Parameter	Total Concentration[1]	Certified Value[2]	Performance Acceptance Limits™ [3]
TRACE METALS PriorityPollutnT™ (Catalog No. 540)	mg/Kg	mg/Kg	mg/Kg
Aluminum	55200*	6700	3880 - 9520
Antimony	239	79.5	D.L. - 177
Arsenic	159	146	115 - 178
Barium	782*	140	109 - 171
Beryllium	71.7	67.8	54.7 - 80.8
Boron	104	37.6	8.88 - 66.3
Cadmium	270	244	196 - 293
Calcium	9750*	3320	2570 - 4080
Chromium	113	99.2	77.9 - 120
Cobalt	60.3	43.0	33.3 - 52.6
Copper	74.1	70.0	54.5 - 85.4
Iron	24400*	12300	7050 - 17500
Lead	89.3	72.8	58.2 - 87.3
Magnesium	3780*	2040	1560 - 2530
Manganese	534	249	190 - 308
Mercury	7.73	8.31	5.14 - 11.5
Molybdenum	36.5	31.2	24.4 - 38.0
Nickel	95.3	82.4	63.4 - 101
Potassium	32500*	1920	1370 - 2470
Selenium	93.8	86.5	59.8 - 113
Silver	140	126	76.0 - 176
Sodium	14800*	337	187 - 487
Strontium	241	52.2	41.3 - 63.0
Thallium	128	118	89.2 - 147
Tin	115	61.5	26.2 - 96.8
Titanium	3100*	319	126 - 512
Vanadium	148	107	80.0 - 134
Zinc	163	138	107 - 169

Method 3050 HNO_3, H_2O_2

Parameter	Total Concentration[1]	Certified Value[2]	Performance Acceptance Limits™ [3]
TRACE METALS PriorityPollutnT™ (Catalog No. 540)	mg/Kg	mg/Kg	mg/Kg
Aluminum	55200*	7310	4230 - 10400
Antimony	239	53.0	D.L. - 155
Arsenic	159	150	115 - 185
Barium	782*	140	110 - 170
Beryllium	71.7	67.3	49.2 - 85.4
Boron	104	39.2	23.7 - 54.6
Cadmium	270	254	197 - 311
Calcium	9750*	3360	2670 - 4050
Chromium	113	101	79.1 - 123
Cobalt	60.3	41.8	33.6 - 50.0
Copper	74.1	69.3	52.3 - 86.3
Iron	24400*	11600	7160 - 16000
Lead	89.3	74.8	58.9 - 90.7
Magnesium	3780*	2110	1570 - 2650
Manganese	534	244	192 - 296
Mercury	7.73	8.31	5.14 - 11.5
Molybdenum	36.5	31.6	22.9 - 40.3
Nickel	95.3	81.8	65.6 - 98.0
Potassium	32500*	2000	1440 - 2560
Selenium	93.8	92.5	69.9 - 115
Silver	140	113	35.0 - 191
Sodium	14800*	334	243 - 425
Strontium	241	52.3	40.5 - 64.0
Thallium	128	130	97.4 - 163
Tin	115	58.4	26.8 - 90.0
Titanium	3100*	288	102 - 475
Vanadium	148	103	78.0 - 128
Zinc	163	131	101 - 161

D037540A

Certificate of Analysis

Total Metals

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Bay St.
Client Sample ID: Duplicate
Date Sampled: 8/27/03
Percent Solid: 100

ESS Project ID: 03090171
ESS Sample ID: 03090171-01 Dup
Units: mg/Kg
Mercury Information: 10000/0.63/40

Test Name	Sample Result	Duplicate Result	RPD	Limits	Date Analyzed	Method
Mercury	**3890**	**4220**	8	35	09/11/03	7471

RPD = Relative Percent Deviation.

ND = Not Detected above MRL.

Approved By: [signature]

Date: 9/26/03

HJL

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ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Connecticut: PH-0750

Maine: RI002

Maryland: 301
Potable Water

Massachusetts: M-RI002

New Hampshire (NELAP):
Drinking Water: 242400-C
Wastewater: 242400-D

New Jersey (NELAP) RI002
Potable Water
Non Potable Water
Solid and Hazardous Waste

New York (NELAP): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

North Carolina: 44701
Potable Water(Organics)

Pennsylvania: 68-934

Rhode Island: 179

United States Department of Agriculture
Soil Permit: S-54210

ESS Laboratory

Division of Thielsch Engineering, Inc.
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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

1 c hrs per KPB Jab 9/16/03 03090171

CHAIN OF CUSTODY

Page 1 of 1

Turn Time ___ Standard Other ___
If faster than 5 days, prior approval by laboratory is required # ___

State where samples were collected from:
MA RI CT NH NJ NY ME Other ___

Is this project for any of the following:
MA-MCP* Navy USACE Other ___

Reporting Limits

ESS LAB PROJECT ID: 03080329

Electronic Deliverable
___ Yes ___ No Format ___

Co. Name: VHB
Contact Person: Claude Masse
City: Providence State: RI Zip: 02909
Telephone #: 272-8100 Fax #: 273-9694 Email Address: cmasse@vhb.com

Project #: 71512
Project Name (20 Char. or less): Bay St.
Address: 530 Broadway
PO#: 71512

Circle and/or Write Required Analysis

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260 624 524.2	8021 VPH	8015 GRO	8100 EPH	8015 DRO EPH	No Targets	8081 Pesticides	8082 PCB	608 Pesticides	608 PCB	625	PAH only	8270	TAL.23	RCRA8	RCRA5	TCLP8	MCP	MCPw/Hg	NBC7	Fish Cyanide	TCLP Lead	HLG
1	8/27/03	1102	X	X	S	1605-SS1 (ms/msD)	6	G/V		X				X						X		X						X		
2		1114	X	X		1605-SS1A	3																								
3		1134	X	X		1605-SS2																									
4		1140	X	X		1605-SS2A																									
5		1156		X		1605-[illegible]																									
6		1158	X	X		1605-SS3																									
1,2		1140		X		1605-SS2 (felt/leather)	1	G												X		X							X		
						Relog of 03080324-07																									
						new # 03090171-01&02																									
						01 is Felt 02 is Soil																									

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes ___ No
Seals Intact: ___ Yes ___ No NA: ✓
Cooler Temp: 4.5°c

Internal Use Only
[ ] Pickup
[ ] Technicians ___

Comments: Samples Id'd as comp + grab - VOAs are grab.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Claude Masse	8/27/03 15:22	Ralph Blake	8/27/03 15:32	Ralph Blake	8/27/03 15:52	[signature]	1552 9/27/03
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
		[signature]	1321 9/16/03				

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt