GEI Consultants

Geotechnical
Environmental
Water Resources
Ecological

MassDEP RTN 3-0694

Risk-Based Cleanup Plan

Former Schiavone Property – Moran Terminal
Charlestown, Massachusetts

Submitted to:
Massachusetts Port Authority
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East Boston, MA 02128

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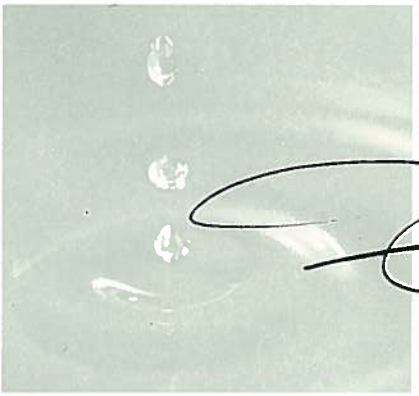

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Executive Summary

On behalf of the Massachusetts Port Authority (Massport), GEI Consultants, Inc. has prepared this Risk-Based Cleanup and Disposal Plan (RBCP) for the management of polychlorinated biphenyl (PCB) contaminated soil at the Former Schiavone property disposal site (the Site), which is located within a portion of Moran Terminal at 100 Terminal Street in Charlestown, Massachusetts (the Property). The Site is identified by Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) 3-0694. PCBs have been detected in soil at the Site at concentrations >50 milligrams per kilogram (mg/kg).

The source(s) of the PCBs at the Site are activities associated with the operation of the Schiavone & Sons scrap metal business, which operated at Moran Terminal from 1964 to 1985. Among the documented activities at the scrap metal yard was a transformer crushing operation. The disposal Site consists of approximately 12 acres of the former Schiavone scrap metal yard. In 1987 to 1988, after the scrap metal yard was closed, Massport had the Site graded and covered with an approximately 15-inch-thick roller-compacted concrete slab.

Contaminants of concern included petroleum, metals, PCBs, volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs). PCBs were identified at the Site in concentrations greater than 50 mg/kg. In 1997, Roy F. Weston, Inc. (WESTON) of Boston, Massachusetts, on behalf of Massport, completed a Phase II Comprehensive Site Assessment and Class A-3 Response Action Outcome (RAO) for the Site. WESTON conducted a limited field investigation, prepared a Method 3 Risk Characterization, and submitted a Class A-3 RAO to MassDEP for Massport. Massport placed an Activity and Use Limitation (AUL) across the entire Site to support the Class A-3 RAO.

Between 2009 and 2011, the Wind Technology Testing Center (WTTC), an approximately 45,000 square foot building for conducting structural tests on large wind farm blades, was constructed at the Site. During construction of the WTTC and its associated utilities, PCB cleanup and disposal activities were conducted in general accordance with the following:

- RBCP submitted to Region I of the U.S. Environmental Protection Agency (EPA) in September 2009.
- Subsequent RBCP addendums and modifications submitted to EPA.
- EPA's "Risk-Based Disposal Approval" letter dated October 20, 2009 and "Modification to PCB Risk-Based Disposal Approval" letter dated January 27, 2010.
- An MCP Release Abatement Measure (RAM) Plan dated October 20, 2009.

Now that construction of the WTTC is complete, Massport is requesting approval for a new RBCP to address the PCBs present under the concrete slab at the remainder of the Site and achieve regulatory closure under the Toxic Substances Control Act (TSCA) and the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). To work toward regulatory closure, GEI developed a site-wide investigation plan on behalf of Massport to: 1) document residual PCB concentrations in soil beneath the cap, and 2) evaluate whether any potential continuing sources exist at the Site. The subsurface investigation consisted of soil boring and monitoring well installation, soil and groundwater sampling, and a geophysical survey.

In February 2011, GEI observed the advancement of 61 soil borings at the Site. Five of the soil borings were completed as groundwater monitoring wells. GEI collected soil samples from each of the borings for chemical analysis from the following depth intervals: 0 to 0.5 feet, 1 to 3 feet, 3 to 5 feet, and 5 to 7 feet. The depth intervals correspond to the urban fill layer at the Site, where the highest PCB concentrations in soil have previously been detected. We also collected groundwater samples from each of the five monitoring wells for PCB analysis.

The results of the chemical analysis identified PCB concentrations in soil at the Site ranging from near detection limits to 100 mg/kg. The contamination is generally greatest on the north side of the Site near the WTTC, and the west side of the Site. PCBs were not detected in groundwater samples.

In March 2011, GEI observed a geophysical investigation to evaluate the potential for the presence of continuing sources at the Site. The results of the geophysical survey, combined with the results of the boring program, did not identify the presence of underground objects which could constitute a continuing source of contamination.

We conducted a focused risk assessment to evaluate potential risks to both future users of the Site and to construction and utility workers who could potentially be exposed to contaminated soil. The presence of the concrete cap eliminates surface runoff and surface water infiltration as potential exposure pathways. However, since levels of PCBs greater than 1 mg/kg exist at the Site, Massport is requesting approval under TSCA and the MCP to continue to maintain the existing restrictions on use of the Site and requirements for capping to mitigate the risk to human health and the environment. In addition, future utility workers will continue to perform work under the obligations and conditions of the existing AUL. Therefore, No Significant Risk (NSR) exists for the Site by maintaining the cap and AUL.

1. Introduction

On behalf of the Massachusetts Port Authority (Massport), GEI Consultants, Inc. prepared this plan for the management of polychlorinated biphenyl (PCB) contaminated soil at the Former Schiavone Property disposal site (the Site; Fig. 1), which is located within a portion of Moran Terminal at 100 Terminal Street in Charlestown, Massachusetts (the Property). The Site is identified by Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) 3-0694. Massport is requesting approval to manage soil at the Site in accordance with the risk-based on-site cleanup and disposal requirements of the Toxic Substances Control Act (TSCA) specified in 40 CFR 761.61(c).

1.1 Background

The Site is a former scrap metal yard, which was located on the Property from 1964 until 1985 (Fig. 2). Field investigations conducted in the 1980s and 1990s to evaluate contamination at the Site identified PCBs at concentrations up to 187 milligrams per kilogram (mg/kg) in soil, as well as metals, total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and cyanide. Field investigations conducted by GEI in 2009 identified PCBs in soil at concentrations up to 425 mg/kg.

The Site was dismantled and capped with an approximately 15-inch to 18-inch-thick concrete slab between 1987 and 1988. The slab was placed over the Site to eliminate human contact with PCB-contaminated soil that remained.

In 1997, Roy F. Weston, Inc. (WESTON) of Boston, Massachusetts, on behalf of Massport, submitted a Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) Class A-3 Response Action Outcome (RAO) for the Site. The Site has an Activity and Use Limitation (AUL) on it, which identifies restrictions on the use of the Property and on contact with sub-slab soils. However, because PCBs have been measured in soils in excess of 50 mg/kg, the Site is also subject to federal TSCA regulations in addition to the MCP. Activities to comply with the TSCA regulations were not conducted at the time of MCP Site work.

Between 2009 and 2011, the Wind Technology Testing Center (WTTC), an approximately 45,000 square foot building for conducting structural tests on large wind farm blades, was constructed at the Site. During construction of the WTTC and excavation for its associated utilities, PCB cleanup and disposal activities were conducted in general accordance with a Risk-Based Cleanup Plan (RBCP) submitted to Region I of the U.S. Environmental Protection Agency (EPA) in September 2009, subsequent addendums and modifications submitted to EPA, EPA's "Risk-Based Disposal Approval" letter dated October 20, 2009, and "Modification to PCB Risk-Based Disposal Approval" letter dated January 27, 2010.

The cleanup was also conducted in accordance with a Release Abatement Measure (RAM) Plan dated October 20, 2009 to meet the requirements of the MCP.

Now that construction of the WTTC is complete, Massport has initiated compliance and is requesting approval for an additional RBCP to address the PCBs present under the concrete slab at the remainder of the Site and achieve regulatory closure under TSCA and the MCP. To work toward regulatory closure, and consistent with conversations between GEI and EPA on June 11, 2009, GEI developed a site-wide investigation plan on behalf of Massport to: 1) document residual PCB concentrations in soil beneath the cap, and 2) evaluate whether any potential continuing sources exist at the Site. The results of the investigation are summarized in this report and will also be included in a revised RAO for the Site, which will include an updated version of the existing AUL.

1.2 Purpose

The purpose of this report is to request the approval of the U.S. EPA for approval of a Risk-Based Cleanup Plan (RBCP) (40 CRF 761.61(c)) for the Site and to provide the supporting documentation for that approval.

1.3 Site Contact Information

The Massport contact person for all activities associated with this request is:

Name:	Erik Bankey
Title:	Project Manager
Address:	Logan Office Center Massachusetts Port Authority One Harborside Drive, Suite 200S East Boston, MA 02128
Telephone:	617-568-3512

The written certification in accordance with 40 CFR 761.61(a)(3), signed by the Massport representative accountable for the Site cleanup of the Massport-owned properties, is provided in Appendix A.

2. General Disposal Site Information

2.1 Site Location

The Site is located at Moran Terminal, 100 Terminal Street, in Charlestown, Massachusetts (Fig. 1). The Site is approximately 12 acres and is covered by a concrete slab that is approximately 15 to 18 inches thick, except where recent construction activities have been conducted (Section 3.7). The concrete slab was installed in the late 1980s to limit the exposure to contaminated soil by potential receptors. Currently, the WTTC is located on a portion of the Site. Boston Autoport (Autoport) of Charlestown, Massachusetts also leases a portion of the Site from Massport for parking of automobiles. The Site is bounded by the Mystic River to the north and west, and paved parking areas to the south and east (Figs. 1 and 2).

2.2 Site Vicinity

The area surrounding the Site includes industrial and commercial areas and office buildings. We have not identified any sensitive environmental receptors within 500 feet of the Site. The Site is not located within a MassDEP-approved Wellhead Protection Area (Zone II Area), MassDEP Interim Wellhead Protection Area (IWPA), or Potentially Productive Aquifer (PPA), and no public water supplies are located within 500 feet of the Site. Additionally, we understand that there are no known private drinking water wells within 500 feet of the Site. The Site is within 500 feet of the Mystic River.

2.3 Property History

Before 1848, the portion of Charlestown on which the Property is located consisted of tidal mud flats and the "Little Mystic Channel," as described in "Gaining Ground," a 2003 compendium of Boston's filling history by Nancy Seasholes. In 1852 the Mystic River Corporation was given a grant to begin filling the Charlestown flats, including the Property. The filling was accomplished by constructing a seawall, then filling the land behind with mud excavated from both sides of the Mystic River channel, to an elevation of 8 feet above mean low water. The filling began in 1859 and continued in phases to 1888. In 1888 the Boston & Maine Railroad added fill to 14.5 feet above mean low water. Some of the later fill materials included coal ash and trash. Filling of the entire area was complete by 1891.

The Property, including the Site, was used for a variety of purposes from 1891 to 1964. Sanborn maps and aerial photographs reviewed by WESTON identify railroad tracks occupying much of the Site, however, other uses included a coal and lumber yard, salt storage, a fuel terminal, and a set of storage buildings on the western side of the area called the Wiggins Terminal. In 1964, Sanborn maps for the Property identify a small scrap metal

staging area on the eastern side of the property. What appears to be the large Schiavone scrap metal yard is observed on photographs from 1970 and 1978.

2.4 Site Ownership and Operations History

The Boston & Maine Railroad owned the Site and adjacent properties from 1891 to 1960. In 1960, the railroad sold the Property (including the Site) to Schiavone Realty Corporation of Massachusetts. In 1970, Schiavone granted the Property and Site to Massport, but continued to lease and operate portions of it as a scrap yard until 1985. Lease boundaries appear to have changed in 1974 and 1976.

The Site was used as a scrap metal yard from 1964 to 1985. After the scrap metal yard closed, Massport began evaluating the remaining waste and documenting waste storage practices. In 1986, Goldman Environmental Consultants (GEC) of Braintree, Massachusetts conducted an inspection to evaluate the types of waste and waste management processes that had occurred at the Site. GEC identified 28 areas of waste storage and disposal, including (among other things): stained soils areas, oily solids/sludge areas, concrete rubble, scrap metal storage areas, scrap auto parts (oil filters, batteries, rubber, hoses), piles of telephone poles, road salt, a wooden railroad car with 7 full drums, a transformer on a pad surrounded by stained soil and drums, a scrap metal crusher, scattered ceramic insulators, and four large cranes. Waste was widely distributed across the Site, with perhaps the greater area of stained soil located on the northeast side of the Site.

GEC also documented a 1986 underground storage tank (UST) removal from the Site. In 1986 Clean Harbors removed two USTs which had been abandoned in place. GEC also tentatively identified aboveground storage tanks on old aerial photos of the Site. These tanks were not present when GEC conducted its inspection.

In 1987, Massport contractors began removing the scrap metal and other waste. According to WESTON, in 1987-1988, J.F. White Contracting Company (J.F. White) of Framingham, Massachusetts, on behalf of Massport, conducted the following cleanup activities:

- Separated and removed debris from the Site, including all the materials identified by GEC.
- Graded the entire Site and covered it with a 3-inch-thick layer of gravel.
- Installed 9-inch-thick pavement base and a 15 to 18-inch-thick roller-compacted concrete pad.

The capped Site is now used by Autoport for storing cars brought into the terminal by ship. There are currently no waste storage or management areas at the Site.

2.5 Site Topography, Subsurface Conditions, and Hydrogeology

The Site is relatively flat at an elevation of about 12 to 14 feet above the National Geodetic Vertical Datum (NGVD) of 1929. Depth to groundwater at the Site ranges from approximately 4 to 6 feet below ground surface. Site groundwater is flows north and west toward the Mystic River.

According to information gathered during subsurface investigations by GEI and others at the Site, geologic units starting at the ground surface include:

- Concrete: An approximately 15 to 18-inch-thick concrete slab is present across the Site.
- Sandy Fill: Underlying the concrete slab in most locations at the Site is a unit of narrowly to widely graded sand with varying amounts of gravel, ranging from approximately 6 to 12 inches thick.
- Urban Fill: Underlying the sandy fill is an approximately 5 to 8-foot-thick layer of urban fill. The fill typically consists of sand and gravel with 5 to 10 percent silt, and contains varying amounts of unburned coal, cinders, ash, clinkers, asphalt, brick, wood, metal, concrete, ceramic, and glass debris. Obstructions made of wood, concrete, and metal are contained in this layer.
- Dredge Fill: A 5 to 10-foot layer of loose gray fine sand with varying amounts of silt underlies the urban fill. The fill was placed at the Site when the Mystic River was dredged in the late 19th century.
- Organic Deposits: An approximately 15 to 45-foot-thick layer of very loose to lose gray organic silt with trace shells, sand, and peat underlies the dredge fill.
- Marine Clay: An approximately 100-foot-thick layer of marine clay underlies the organic deposits. The marine clay consists of gray silty clay and is part of the Boston Blue Clay formation. The top 10 to 20 feet of the clay is stiff to very stiff and overlies softer clay.
- Glaciofluvial Deposits: Underlying the marine clay is an approximately 10-foot layer of glaciofluvial deposits.
- Glacial Till: Approximately 5 feet of glacial till underlies the glaciofluvial deposits. The till typically consists of gray clayey and silty sand with gravel.
- Bedrock: The top of bedrock is approximately 160 to 170 feet deep. The bedrock is the Cambridge Argillite.

3. Previous Investigations

3.1 1986-1987: GEC Investigations

As discussed in Section 2.3, GEC conducted a Site History investigation, to evaluate potential sources of contamination at the Site. The initial Site visit was followed by a field investigation, consisting of surface soil sampling and the installation of five monitoring wells (MW-1 to MW-5), with associated soil and groundwater analysis. The monitoring wells were installed 11 to 20 feet deep.

The soil samples were tested for PCBs, VOCs, pesticides, priority pollutant metals, phthalates, PAHs, and cyanide. The VOC concentrations in soil ranged from 115 micrograms per kilogram (µg/kg) to 210 µg/kg. The PCBs in soil ranged from below detection limits to 87 mg/kg. Various metals, including lead, chromium, copper, arsenic, selenium, beryllium, cadmium, mercury, zinc, nickel, and antimony were identified in soil samples, as was cyanide. The soil also contained PAHs and phthalates. Pesticides were not identified in soil samples above detection limits. Neither PCBs nor VOCs were identified in groundwater above the method detection limits.

3.2 1986: Haley & Aldrich Test Pit Investigation

GEC's report included a summary of the results of a 1986 Haley & Aldrich (H&A) of Boston, Massachusetts test pit investigation at the Site. Twenty test pits were excavated and soil samples were analyzed for VOCs, oil and grease, PCBs, and metals. The soil samples contained VOCs, oil and grease, PCBs, and metals. The PCB concentrations ranged from 0.6 to 110 mg/kg.

3.3 1987-1988: Remedial Activities

After MassDEP listed the Site as a "Location to be Investigated" on July 15, 1987, GEC, on behalf of Massport, began managing the excavation of stained soil areas at the Site and collecting confirmatory soil samples for PCB analysis in August 1987. After approximately 10 cubic yards (yds^3) of soil had been excavated, 12 confirmatory soil samples were sent to Cambridge Analytical of Boston, Massachusetts for PCB analysis. The total PCB concentrations in the confirmatory samples ranged from 75 to 175 mg/kg. According to WESTON's 1997 RAO report, in 1988, Massport engaged J.F. White to conduct site improvement and remedial activities at the Site. The remedial activities included:

- Separating debris from soil and removing debris from the Site.
- Grading the Site and covering it with a 3-inch-thick gravel layer.
- Installing water, electrical, and drainage utilities.

- Moving the truck entrance to the eastern Moran Terminal boundary.
- Installing 9 inches of pavement base and a 15-inch-thick roller-compacted concrete slab across 12 acres of the Site.

3.4 1992-1995: Groundwater Sampling

Between 1992 and 1995, Cortell Associates of Boston, Massachusetts, and Whitman and Howard, Inc. (WH) of Boston, Massachusetts, conducted four rounds of groundwater sampling at the Site. The wells were tested for VOCs and PCBs. PCBs were identified in groundwater in June 1994 at concentrations less than 1 microgram per liter (µg/L). In November 1994, 2.9 µg/L PCBs was identified in well MW-2. Subsequent sampling of MW-2 in November and December 1994 identified 0.3 µg/L and 0.5 µg/L of PCBs. PCBs were not detected above laboratory reporting limits in groundwater during the July 1995 sampling event.

Based on previous investigations and on groundwater sampling data collected for the Site between 1992 and 1995, WH submitted a Phase I Initial Site Investigation (ISI) and Tier Classification to MassDEP on August 2, 1995. WH concluded in their Phase I ISI that additional response actions were needed at the Site to achieve an RAO.

3.5 1997: WESTON Phase II Investigation

Based on WH's 1995 Phase I ISI, additional response actions were needed to achieve regulatory closure at the Site. Consequently, in 1996-1997, WESTON conducted field investigations at the Site in support of an MCP Phase II Comprehensive Site Assessment (CSA). WESTON redeveloped five existing monitoring wells (MW-1 to MW-5), conducted aquifer conductivity tests in the wells, and advanced five soil borings (SB-1 to SB-5). The soil borings were 7.5 to 10 feet deep. WESTON's Site Plan is attached as Appendix B.

Groundwater samples from the monitoring wells were sent to Toxicon Corporation of Bedford, Massachusetts for volatile and extractable petroleum hydrocarbons (VPH/EPH), phthalates esters, PCBs dissolved lead and dissolved zinc. With the exception of VPH, the groundwater samples were field-filtered before analysis. Soil samples were analyzed for PCBs, VPH, EPH, phthalate esters, lead, and zinc.

The results of WESTON's groundwater sampling identified dissolved zinc in two groundwater samples. The results of the soil analysis indicated the presence of VPH, plus the target analytes benzene, toluene, xylenes, ethylbenzene, naphthalene, and methyl-tert-butyl-ether (MTBE). Soil samples also contained EPH and several PAHs. Phthalates were not identified above laboratory detection limits and only one PCB, Aroclor 1254 was identified in SB-1, at 1.04 mg/kg. Lead concentrations in WESTON's soil samples ranged from 4.12 to 751 mg/kg and zinc from 12.2 to 665 mg/kg.

Based on the results of their investigation and on the investigations by others, WESTON prepared a Method 3 Risk Characterization and RAO report for the Site. The Method 3 Risk Characterization concluded a condition of No Significant Risk (NSR) existed with maintenance of the cap and the placement of an AUL on the Site.

On August 7, 1997, an AUL was placed on the 12-acre Site. The AUL prohibited the use of the property for residences, day care, or agricultural purposes and mandated the maintenance of the concrete cap. It further stipulated that a Soil Management Plan, and a RAM or Utility Related Abatement Measure (URAM) Plan would be necessary to disturb the cap and excavate the underlying soils. The AUL is attached as Appendix C.

A Class A-3 RAO was submitted to MassDEP for the Site on August 7, 1997.

3.6 2009: WTTC Site Characterization by GEI

Between May 29 and November 20, 2009, GEI conducted a site characterization program in accordance with the RBCP, dated September 2009, to pre-characterize soil for disposal during excavation for the WTTC. The program consisted primarily of the advancement of 811 soil borings through the concrete slab, and the collection of 2,360 discrete soil and 258 concrete samples for laboratory analysis. Two-hundred thirty-five (235) additional field quality control soil samples were also submitted for laboratory analysis. All soil and concrete samples were submitted to Alpha Analytical Laboratories, Inc. (Alpha) of Westborough, Massachusetts, or AMRO Environmental Laboratories, Corp. (AMRO) of Merrimack, New Hampshire for PCB analysis by EPA Method 8082 with manual soxhlet extraction by EPA Method 3540C.

The objectives of the site characterization were to evaluate the PCB concentrations of the in-situ soils for excavation and disposal, and document PCB concentrations in soils that would be left in place following excavation and construction of the WTTC and its associated utilities.

The results of the chemical analysis identified PCBs in soil across the WTTC building footprint and in the utility corridors, present at concentrations ranging from near laboratory reporting limits to 436 mg/kg. The contamination was generally greatest on the north and west sides of the WTTC project area. Contamination was also generally higher in the urban fill unit at depths of 0.5 to 5 feet below the slab.

We also submitted concrete samples to Alpha for PCB analysis from any concrete core in which the underlying soil (from the 0- to 0.5-foot interval) contained more than 1.0 mg/kg of PCBs. Of the 258 concrete samples analyzed, only one concrete sample contained PCBs greater than laboratory reporting limits.

On July 10, 2009, we collected groundwater samples using low-flow techniques from two existing monitoring wells at the Site: WTTC09-1 and MW-4. PCBs were not detected in groundwater samples collected from either monitoring well.

3.7 2010-2011: WTTC – PCB Cleanup Activities by GEI

The cleanup of PCB remediation waste associated with the construction of the WTTC generally consisted of the excavation and on-site or off-site disposal of PCB-impacted soil and debris underlying foundation elements and utility corridors. GEI also collected verification samples from the excavations to confirm the extent of the excavations and document residual PCB concentrations in Site soil. The PCB cleanup and disposal work was conducted between October 2009 and March 2010.

The concrete cap was removed to perform excavation, construct the building foundation elements, and install the site utilities. Once the foundation elements and utilities were installed the concrete cap was restored at the Site, except for the portion which was covered by the WTTC building. By constructing the WTTC building and restoring the cap in utility trenches outside of the building footprint, the soil exposure pathway for current and future uses of the WTTC at the ground surface has been eliminated. Therefore, underlying soil does not pose a risk to human health or the environment.

Details of cleanup and disposal activities for the WTTC soils will be provided to EPA under separate cover in our PCB Cleanup Completion Report.

4. Moran Terminal PCB Investigation, 2011

In accordance with EPA's guidance as discussed with Ms. Kim Tisa of EPA on June 11, 2009, GEI developed a plan for investigating the remaining 11 acres of the former Schiavone Property disposal site. The investigation plan is summarized below.

4.1 Boring Advancement and Soil Sampling

In February 2011, we conducted a subsurface investigation to document PCB concentrations in soil beneath the existing concrete cap at the Site. We engaged M Solberg Enterprises (Solberg) of Winchester, Massachusetts, to core through the existing concrete slab to provide access for boring advancement. Solberg cored 61, 4-inch diameter holes across the slab in the locations shown on Fig. 3. Of these 61 holes, Solberg cored 38 holes across the Site at an approximately 100-foot grid spacing, and 23 holes along the Site perimeter every 100 linear feet. Some coring locations were moved off the designated sample spacing to avoid the WTTC and other obstructions (e.g., salt storage piles) as shown in Fig 2.

After coring was complete, we observed Geologic-Earth Exploration, Inc. of Norfolk, Massachusetts (Geologic) advance 1.5-inch diameter, direct push soil borings in each of the core holes to depths of 1 to 11 feet using a Geoprobe® drill rig. Borings were typically terminated in the hydraulic fill layer or if refusal was encountered. Geologic completed borings E3, E8, F5, H5, and J4 as groundwater monitoring wells. The monitoring wells were drilled to a depth of 16 feet and constructed with 10 feet of screen. The boring and well locations are shown on Fig. 2, and a summary of the boring and monitoring well construction details is in Table 1. Boring logs are in Appendix D.

GEI collected soil samples from each of the borings from the following depth intervals: 0 to 0.5 feet, 1 to 3 feet, 3 to 5 feet, and 5 to 7 feet. We submitted 207 discrete samples (including 16 field duplicates) to AMRO for analysis by EPA Method 8082 with manual soxhlet extraction by EPA Method 3540C. The depth intervals correspond to the thickness of the urban fill layer, where the highest PCB concentrations in soil were detected during investigation and remediation work for the WTTC, and which was likely deposited at the Site after 1888.

The results of the chemical analysis identified PCBs in 77 of the 207 samples collected across the Site. PCB concentrations ranged from not detected above the laboratory reporting limit to 100 mg/kg, with an average concentration of 12 mg/kg. Only three samples (G2-S1(0-0.5) and its field duplicate G2-S20, and J3-S2(1-3)) contained PCBs at concentrations greater than 50 mg/kg. Soil chemical testing results are summarized in Table 2 and shown in Figures 3a through 3d. Laboratory data reports are in Appendix E.

4.2 Groundwater Sampling

On July 10, 2009, we collected groundwater samples using low-flow techniques from five newly installed monitoring wells at the Site: E3(MW), E8(MW), F5(MW), H5(MW), and J4(MW). The purpose of the sampling was to evaluate whether PCBs are present in groundwater and, therefore, whether any continuing sources of PCB contamination exist for groundwater at the Site.

PCBs were not detected above the laboratory reporting limit in groundwater samples collected from any of the monitoring wells. Groundwater chemical testing results are in Table 3 and laboratory data reports are in Appendix E.

4.3 Wastes Generated During Site Characterization Activities

Soil from borings, and monitoring well purge water were generated during the Site investigation. The waste was temporarily stored on site in 55-gallon drums. Based on the concentrations of PCBs in soil and the requirements of TSCA, the Reuse and Disposal of Contaminated Soil at Massachusetts Landfills Policy (COMM-97-001), and the Remediation Waste Section of the MCP (310 CMR 40.0030), the soil and purge water are suitable for disposal at a hazardous waste facility. On June 9, 2011, the soil and water were transported off site under hazardous waste manifests to General Chemical Corporation of Framingham, Massachusetts, a temporary storage facility, by TMC Services, Inc. of Bellingham, Massachusetts. From General Chemical Corp, the site characterization waste was then transported to Model City Landfill in Model City, New York for disposal. Copies of the hazardous waste manifests and the Certificate of Disposal are in Appendix F.

4.4 Geophysical Investigation

Between March 21, 2011 and April 5, 2011, we observed Hager Geoscience (Hager) of Woburn, Massachusetts conduct a geophysical survey of the Site to evaluate whether any potential continuing sources of PCB contamination, in the form of large buried structures, exist at the Site. Hager performed the geophysical survey using a combination of electromagnetic (EM) and ground penetrating radar (GPR) methods to identify the potential presence of underground objects such as buried drums or tanks which could constitute a continuing source of contamination.

Because much of the survey was near salt piles, the WTTC building, and other obstructions, certain survey areas could be covered by either the EM method or the GPR method, but not by both. Hager identified a total of 24 anomalies and, of these, 6 were identified as “high” potential. A copy of Hager’s report is in Appendix G.

We compared the anomaly locations to our boring locations, and to the historic reports from the Site, including the 1986 test pit investigation. Hager identified "high" potential anomalies as the following: locations D, E, G, H, M, and P (Figs. 4a through 4c).

Regarding locations D and E, Hager describes these as "areas of multiple low response targets." These areas are in the part of the WTTC building investigation area where we identified abundant shallow debris, including railroad ties, granite blocks, and scrap metal. In addition, a large windmill blade was in this area at the time of the survey, which may have created EM interference.

Regarding location G, this is also identified as "areas of multiple low response targets." Area G is located in a section of the WTTC building investigation where we installed soil borings on a 10-foot grid. During that boring investigation, we did not observe unusual contamination or debris.

Anomaly location H contains boring G6, installed as part of this investigation (Fig. 2). Unusual contamination was not observed in boring G6. In addition, PCB concentrations did not exceed 25 mg/kg in this location.

Anomaly locations M and P also had borings located within or adjacent to them. PCB concentrations were less than 25 mg/kg to a depth of 7 feet in location P. Refusal was encountered in boring H6.5 near anomaly location M, which is consistent with shallow debris that has typically been noted at the Site.

Based on GEC's 1986 investigation, the anomalies identified by Hager are not located in areas associated with significant junkyard disposal waste. Based on our evaluation of known soil conditions in these areas, and our understanding of the historic disposal practices, we concluded that excavation in the anomaly areas was not necessary.

5. Representativeness Evaluation and Data Usability Assessment

The purpose of a Representativeness Evaluation and Data Usability Assessment is to evaluate the extent to which a data set meets specific site characterization and data usability objectives. We performed a representativeness and data usability evaluation in general accordance with MassDEP Policy #WSC-07-350, "MCP Representativeness Evaluations and Data Usability Assessments," dated September 19, 2007.

5.1 Representativeness Evaluation

5.1.1 Conceptual Site Model

We developed a conceptual site model based on the findings of our field investigations and review of the Site history. Historic records indicate that the Site was primarily used for storage of various items including coal, lumber, salt, and fuel from 1891 until 1964. From 1964 until 1985 the Site was occupied by the Schiavone & Sons junkyard and scrap metal business. Currently, the WTTC is located on a portion of the Site. Autoport also leases a portion of the Site from Massport for parking of automobiles.

The area surrounding the Site includes industrial and commercial areas and office buildings. We have not identified any sensitive environmental receptors within 500 feet of the Site. The Site is not located within a MassDEP-approved Wellhead Protection Area (Zone II Area), MassDEP IWPA, or PPA, and no public water supplies are located within 500 feet of the Site. Additionally, we understand that there are no known private drinking water wells within 500 feet of the Site. The Site is within 500 feet of the Mystic River.

Contaminants of concern include petroleum, metals, PCBs, VOCs, and PAHs. PCBs are present at the Site in soil at concentrations greater than 50 mg/kg, and are the subject of this evaluation. The source(s) of the PCBs at the Site are activities associated with the operation of the scrap metal yard. Among the documented activities at the scrap metal yard was a transformer crushing operation.

In 1987 to 1988, after the junkyard was closed, Massport had the Site, approximately 12 acres of the former scrap metal yard, graded and covered with an approximately 15- to 18-inch-thick roller-compacted concrete slab to eliminate contact with subsurface soils.

5.1.2 Field and Screening Data

We collected field and screening data during sample collection activities associated with subsurface investigations at the Site. Field and screening data include groundwater elevations and physical parameter measurements we made during groundwater sampling (e.g., pH, temperature, conductivity, dissolved oxygen, etc.).

We also recorded visual or olfactory evidence of contamination that we observed during sampling events. We reviewed field and screening data with the associated laboratory chemical data as part of the data quality assessment.

We also observed Hager perform a geophysical survey of the Site to evaluate whether any potential continuing sources of PCB contamination, in the form of large buried structures, exist at the Site. We compared the survey with our boring locations and historic data to identify potential areas of additional investigation.

5.1.3 Sampling Rationale

Based on the nature and source of contamination, we analyzed soil and groundwater samples for PCBs.

We collected soil samples to document residual PCB concentrations in soil beneath the cap at the Site. We collected soil samples from borings installed through the slab on either a 100-foot grid spacing or a frequency of one sample per 100 linear feet consistent with conversations between GEI and EPA on June 11, 2009. We collected soil samples from the urban fill layer at the Site, where the highest PCB concentrations in soil were detected during our previous investigation and remediation work for the WTTC.

We collected groundwater samples at the Site to evaluate whether PCBs are present in groundwater and, therefore, whether any potential continuing sources such as buried drums or tanks exist at the Site.

5.1.4 Sample Number, Spatial Distribution, and Sample Handling

GEI collected soil and groundwater samples to document residual PCB concentrations in soil and evaluate whether any potential continuing sources exist at the Site. Sample locations including borings and groundwater monitoring wells are indicated in Fig. 2.

We used the appropriate sample collection techniques for each of the matrices analyzed (water and soil). All samples were preserved and handled as indicated by the MassDEP Compendium of Analytical Methods (CAM).

Given the size of the Site and the nature of contamination, it is our opinion that the available data are adequate to define the Site and to be representative of Site conditions at the time of sampling.

5.1.5 Temporal Distribution

We did not perform temporal sampling in any of the soil borings or groundwater monitoring wells.

5.1.6 Field Quality Control Samples (Field Duplicate Samples)

Field duplicates are two samples taken from the same location, submitted to the same lab in separate containers, labeled differently, and analyzed separately. Information from the analysis of field duplicate samples aids in the evaluation of the precision and representativeness of sampling procedures.

During the Site characterization, we submitted 16 soil field duplicates for laboratory analysis. Of the 16 soil field duplicates, we collected three from 0 to 1 foot, six from 1 to 3 feet, six from 3 to 5 feet, and one from 5 to 7 feet. Soil field duplicates and their results are listed in Table 4.

We compared the soil field sample analysis and corresponding field duplicate sample analysis results by calculating and evaluating the relative percent difference (RPD) between the field samples and their duplicates.

We calculated RPDs for 6 of the 16 soil field duplicate pairs. The results of the RPD calculations are in Table 4. We did not calculate RPDs for 9 of the 10 remaining pairs because PCBs were not detected in the duplicate pair above the laboratory reporting limit. We did not calculate RPDs for the remaining pair because PCBs were not detected in at least one of the samples in the pair at concentrations above the laboratory reporting limit.

Four of the 6 duplicate pairs for which RPDs were calculated met the comparability acceptance criterion of 50 percent RPD. The two remaining duplicate pairs had an RPD of 50.62 and 166.34, respectively, and did not meet the comparability acceptance criterion. However, since all other sample and batch specific quality control criteria were within acceptable limits, the observed variability is likely attributed to sample heterogeneity, and the data are considered valid and useable for their intended purpose.

5.1.7 In-House Data Validation

All laboratory data reports from AMRO were validated according to GEI SOP No. RE-008, a copy of which is in Appendix F, and the EPA Region 1 Data Validation Functional Guidelines for Evaluating Environmental Analyses (1996). This level of review is comparable to an EPA Tier II data validation and involves the review of the following items:

chain-of custody, holding times, surrogates, matrix spikes, lab control standards, method blanks, laboratory and field duplicates, and reporting limits.

All data were found to be valid and useable for their intended purpose. Some data were qualified as estimated due to minor quality control deficiencies. Qualifiers were applied to the data tables and are defined in the footnotes.

5.1.8 Data Completeness

A comprehensive analytical data set for this Site is available and consists of soil and groundwater.

5.1.9 Data Inconsistency and Uncertainty

We encountered refusal in several borings during our investigation. The exact source of the refusals is unknown. However, based on previous investigations and remediation work, it is likely that refusal was caused by debris in the urban fill.

5.1.10 Information Considered Unrepresentative

We did not use laboratory data collected by other consultants to support this RBCP. We did consider these data as part of identifying investigation locations. We also did not use data reflective of soil that has been transported from the Site.

5.2 Data Usability

5.2.1 Evaluation of CAM Data

Chemical testing data used to support this RBCP were generated after the MassDEP (CAM) and Wave 2 changes were generated pursuant to the MassDEP CAM and 310 CMR 40.1056 and meet the criteria for "Presumptive Certainty" as identified in WSC No. 02-320: Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. These data areas are also consistent with our field observations, are representative of conditions that exist or existed at the Site, and are of a level of precision and accuracy commensurate with the preparation of this RBCP.

5.2.2 Data Usability Criteria

We evaluated data for the precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) parameters as part of our field procedures, our laboratories' analytical protocols, and our in-house data review and validation process. We did not qualify any data presented in this RBCP.

6. Extent of PCBs

6.1 Source of Contamination

The historic use of the Site as a scrap metal yard from 1964 to 1987 is the likely source of PCBs at the Site. One of the single largest sources was a transformer crushing operation on the northeastern side of the Site. Other storage and scrap metal handling areas were located along the former railroad tracks on the western edge of the Site. In addition, PCBs from off-site sources may have been brought onto the Site in urban fill.

As part of our 2011 Site investigation, we evaluated whether any continuing sources of PCB contamination exist at the Site. The results of the geophysical survey combined with the results of the boring program did not identify the presence of underground objects which could constitute a continuing source of contamination. The absence of PCB contamination in groundwater is additional evidence that a continuing source of PCBs is not present at the Site.

6.2 Extent of Contamination

Between May and November 2009, GEI conducted a site subsurface investigation program to pre-characterize soil for disposal during excavation for the WTTC. The results of the chemical analysis identified PCBs in soil across the WTTC building footprint and in the utility corridors, present at concentrations up to 436 mg/kg. The contamination was generally greatest on the north and west sides of the WTTC project area. Contamination was also generally higher in urban fill from depths of 1 to 5 feet below the slab than in the underlying 19th century dredge fill.

GEI combined the results of the laboratory chemical analysis of samples collected in February 2011 across the Site with the findings of the WTTC investigation to completely evaluate PCBs in accordance with TSCA. Locations where PCB concentrations in soil were ≤ 2 mg/kg; > 2 mg/kg, but < 25 mg/kg; > 25 mg/kg, but < 50mg/kg; and > 50 mg/kg are shown from 0 to 1 foot, 1 to 3 feet, 3 to 5 feet, and 5 to 7 feet below the bottom of the existing concrete slab in Figs. 3a through 3d. PCBs were not detected above the laboratory reporting limits in groundwater samples collected from five monitoring wells at the Site: (E3(MW), E8(MW), F5(MW), H5(MW), and J4(MW) (Fig. 2).

In the 2011 investigation, less than 1 percent of the soil tested contained PCBs at concentrations greater than 50 mg/kg. In addition, the highest PCB concentration of 100 mg/kg detected in boring G2 is 4 times less than the maximum PCB concentration detected during the 2009 WTTC investigation. Of the 207 soil samples tested, 52 contained PCBs greater than 2 mg/kg, but less than 50 mg/kg. Approximately 30 percent of the soil

had less than 2 mg/kg of PCBs. The bulk of this material was located either immediately beneath the concrete slab or at depths of 5 to 7 feet. This supports the findings of the WTTC investigation that PCB contamination is typically higher in the modern, urban fill at depths of 1 to 5 feet below the slab than in the deeper, 19th century dredge fill.

The highest concentrations of PCBs were also detected near the WTTC and along the western edge of the Site. According to Weston's 1997 Phase II CSA, the northern portion of the Site, including the WTTC, was historically occupied by transformer crushing operations and scrap metal yard operations. Higher PCB concentrations along the western edge of the Site also approximately correspond to former train tracks and ceramic insulator storage areas.

7. Focused Risk Assessment

We conducted a focused risk assessment to evaluate potential risks to both future users of the Site and to construction and utility workers who could potentially be exposed to contaminated soil.

In 1988, J.F. White, on behalf of Massport, removed the contents of the Schiavone scrap metal yard, regraded the entire Site, and then placed 3 inches of gravel and a 15 to 18-inch thick roller compacted concrete slab over the entire Site.

On August 7, 1997, after a Phase II CSA and Method 3 Risk Characterization were completed, an AUL was placed on the Site to mitigate the risk to human health and the environment from contact with soil contaminants, including PCBs. The AUL included provisions to perform future utility work and excavation; prohibited the use of the property for residences, day care, or agricultural purposes; and mandated the maintenance of the concrete cap. The placement of the AUL allowed Massport to close the Site with a Class A-3 RAO.

The presence of a concrete cap over the whole site eliminates the soil exposure pathway for current and future uses of the Site. Therefore, underlying soil does not pose risk to human health or the environment. Because groundwater at the Site does not contain PCBs, there is also no risk to human health and the environment from the groundwater exposure pathway.

Because the concrete cap already exists at the Site and is sufficiently protective of human health and the environment, no other remedial measures are necessary.

Since levels of PCBs > 1 mg/kg exist at the Site, Massport is requesting approval under TSCA and the MCP to maintain the existing restrictions on use of the Site. The requirements for capping will remain to mitigate the risk to human health and the environment. In addition, future utility workers will continue to perform work under provisions of the existing AUL. Therefore, No Significant Risk exists for the Site by maintaining the cap and AUL.

The current AUL will be updated and included in a Revised RAO that we will prepare and submit to MassDEP for the Site to include the presence of the WTTC, additional data collected as a result of work associated with the WTTC and our 2011 Site investigation.

8. Certification 40 CFR 761.61(a)(3)(E)

The certification required by 40 CFR 761.61(a)(3)(E) is presented in Appendix A.

9. Limitations

This report was prepared for the use of Massport, exclusively. Massport may submit this report to the EPA and MassDEP. The findings provided by GEI in this report are based solely on the information reported in this document. Future investigations or information that was not available to GEI at the time of this investigation may result in a modification of the conclusions stated above. This report has been prepared in accordance with generally accepted engineering and geohydrological practices. No warranty, expressed or implied, is made.

Table 1. Boring and Monitoring Well Construction
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

Boring or Well ID	Location Type	Installation Date	Ground Surface Elevation (ft NAVD)	PVC Pipe Elevation (ft NAVD)	Well Screen Depth Interval (ft)	Screened Strata	Total Depth Drilled (ft)	Refusal (Y/N)?
A12	Boring	2/16/2011	9.62	NA	NA	NA	11	No
B10	Boring	2/16/2011	12.88	NA	NA	NA	4.5	Yes
B11	Boring	2/16/2011	9.22	NA	NA	NA	11	No
C10	Boring	2/16/2011	13.03	NA	NA	NA	4.5	Yes
C8	Boring	2/16/2011	13.07	NA	NA	NA	4.5	Yes
C9	Boring	2/16/2011	12.77	NA	NA	NA	2.5	Yes
CD9	Boring	2/15/2011	10.25	NA	NA	NA	11	No
D5	Boring	2/14/2011	11.04	NA	NA	NA	8	Yes
D6	Boring	2/14/2011	11.10	NA	NA	NA	3.5	Yes
D6.5	Boring	2/14/2011	11.35	NA	NA	NA	4	Yes
D7	Boring	2/14/2011	11.19	NA	NA	NA	11	No
D8	Boring	2/15/2011	10.79	NA	NA	NA	11	No
E3	Monitoring Well	2/10/2011	11.89	11.62	6 - 16	NA	11	No
E4	Boring	2/15/2011	11.87	NA	NA	NA	4	Yes
E5	Boring	2/11/2011	11.09	NA	NA	NA	1	Yes
E6	Boring	2/15/2011	11.43	NA	NA	NA	11	No
E7	Boring	2/14/2011	11.60	NA	NA	NA	11	No
E8	Monitoring Well	2/15/2011	10.73	9.96	6 - 16	NA	11	No
E9	Boring	2/15/2011	10.78	NA	NA	NA	11	No
EF8	Boring	2/16/2011	NM	NA	NA	NA	3.5	Yes
F2	Boring	2/14/2011	11.73	NA	NA	NA	4	Yes
F5	Monitoring Well	2/11/2011	11.64	11.46	6 - 16	NA	11	No
F6	Boring	2/14/2011	12.02	NA	NA	NA	11	No
F7	Boring	2/14/2011	12.08	NA	NA	NA	4.5	Yes
F7.5	Boring	2/14/2011	11.97	NA	NA	NA	7.5	Yes
F9	Boring	2/15/2011	NM	NA	NA	NA	3.5	Yes
G2	Boring	2/14/2011	12.06	NA	NA	NA	3	Yes
G5	Boring	2/11/2011	11.85	NA	NA	NA	11	No
G6	Boring	2/11/2011	11.59	NA	NA	NA	11	No
G7	Boring	2/14/2011	11.76	NA	NA	NA	6	Yes
G7.5	Boring	2/14/2011	11.63	NA	NA	NA	4	Yes
H2	Boring	2/14/2011	11.75	NA	NA	NA	11	No
H5	Monitoring Well	2/11/2011	10.83	10.49	6 -16	NA	11	No
H5.5	Boring	2/11/2011	11.28	NA	NA	NA	5	Yes
H6	Boring	2/11/2011	11.20	NA	NA	NA	1	Yes
H6.5	Boring	2/15/2011	11.46	NA	NA	NA	2.5	Yes
H7	Boring	2/14/2011	11.27	NA	NA	NA	4	Yes
H7.5	Boring	2/15/2011	11.25	NA	NA	NA	11	No
I2	Boring	2/10/2011	11.22	NA	NA	NA	2.5	Yes
J2	Boring	2/10/2011	11.55	NA	NA	NA	2.5	Yes
J3	Boring	2/10/2011	11.94	NA	NA	NA	3	Yes
J4	Monitoring Well	2/10/2011	11.84	11.53	6 - 16	NA	11	No
P1	Boring	2/10/2011	10.46	NA	NA	NA	1	Yes
P10	Boring	2/15/2011	10.58	NA	NA	NA	3	Yes
P11	Boring	2/14/2011	10.53	NA	NA	NA	11	No
P12	Boring	2/14/2011	10.45	NA	NA	NA	11	No
P13	Boring	2/16/2011	9.88	NA	NA	NA	11	No
P14	Boring	2/15/2011	9.89	NA	NA	NA	4	Yes
P15	Boring	2/16/2011	9.61	NA	NA	NA	11	No
P16	Boring	2/16/2011	9.51	NA	NA	NA	11	No
P17	Boring	2/16/2011	9.18	NA	NA	NA	11	No
P18	Boring	2/16/2011	13.05	NA	NA	NA	11	No
P19	Boring	2/14/2011	11.19	NA	NA	NA	11	No
P2	Boring	2/10/2011	11.39	NA	NA	NA	1	Yes
P20	Boring	2/16/2011	13.34	NA	NA	NA	11	No
P21	Boring	2/15/2011	11.79	NA	NA	NA	11	No
P22	Boring	2/15/2011	11.82	NA	NA	NA	11	No
P3	Boring	2/10/2011	11.73	NA	NA	NA	1	Yes
P4	Boring	2/10/2011	11.14	NA	NA	NA	11	No
P5	Boring	2/11/2011	10.89	NA	NA	NA	4	Yes
P6	Boring	2/11/2011	10.92	NA	NA	NA	1	Yes

General Notes:
1. ft = feet.
2 NAVD = North American Vertical Datum of 1988.
3. NA = Not Applicable.
4. NM = Not Measured.

Table 2. Chemical Testing Results - Soil
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

Boring Location	Sample Name	Sample Date	Sample Depth (ft)	Analyte Concentration (mg/kg)				
				Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
A12	A12-S1(0-0.5)	2/16/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	A12-S2(1-3)	2/16/2011	1-3	< 0.58	< 0.58	< 0.58	3.1	3.1
	A12-S3(3-5)	2/16/2011	3-5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	A12-S20	2/16/2011	3-5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	A12-S4(5-7)	2/16/2011	5-7	< 0.63	< 0.63	< 0.63	< 0.63	ND
B10	B10-S1(0-0.5)	2/16/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	B10-S2(1-3)	2/16/2011	1-3	< 0.54	0.57	1.2	< 0.54	1.77
	B10-S3(3-4.5)	2/16/2011	3-4.5	< 0.57	2.2	2.6	0.7	5.5
B11	B11-S1(0-0.5)	2/16/2011	0-0.5	< 0.57	< 0.57	< 0.57	< 0.57	ND
	B11-S2(1-3)	2/16/2011	1-3	< 0.61	< 0.61	< 0.61	< 0.61	ND
C10	C10-S1(0-0.5)	2/16/2011	0-0.5	< 0.57	< 0.57	< 0.57	< 0.57	ND
	C10-S2(1-3)	2/16/2011	1-3	< 0.53	1.1	1.1	< 0.53	2.2
	C10-S3(3-4.5)	2/16/2011	3-4.5	< 0.57	3.2	2.8	0.79	6.79
C8	C8-S1(0-0.5)	2/16/2011	0-0.5	< 0.57	4.7	4.6	1.8	11.1
	C8-S2(1-3)	2/16/2011	1-3	< 0.57	9.4	8.8	2.5	20.7
	C8-S3(3-4.5)	2/16/2011	3-4.5	< 0.59	3.4	3.5	0.98	7.88
	C8-S20 (FD)	2/16/2011	3-4.5	< 0.58	3.1	3.8	1.1	8
C9	C9-S1(0-0.5)	2/16/2011	0-0.5	< 0.56	4.7	3.2	1.3	9.2
	C9-S2(1-2.5)	2/16/2011	1-2.5	< 0.56	3.3	2.5	0.87	6.67
CD9	CD9-S1(0-0.5)	2/15/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	CD9-S2(1-3)	2/15/2011	1-3	< 0.49	< 0.49	< 0.49	< 0.49	ND
	CD9-S3(3-5)	2/15/2011	3-5	< 0.58	< 0.58	0.7	< 0.58	0.7
	CD9-S4(5-7)	2/15/2011	5-7	< 0.57	< 0.57	< 0.57	< 0.57	ND
D5	D5-S1(0-0.5)	2/14/2011	0-0.5	< 0.53	10	10	4.1	24.1
	D5-S2(1-3)	2/14/2011	1-3	< 0.64	11	13	5.3	29.3
	D5-S3(3-5)	2/14/2011	3-5	< 0.56	6.3	9.9	3.7	19.9
	D5-S4(5-7)	2/14/2011	5-7	< 0.59	8	14	6.8	28.8
D6	D6-S1(0-0.5)	2/14/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	D6-S2(1-3)	2/14/2011	1-3	< 0.64	2.6	2.4	0.87	5.87
	D6-S3(3-3.5)	2/14/2011	3-3.5	< 0.54	3.5	3.1	1.2	7.8
D6.5	D6.5-S1(0-0.5)	2/14/2011	0-0.5	< 0.49	< 0.49	< 0.49	< 0.49	ND
	D6.5-S2(1-3)	2/14/2011	1-3	< 0.49	< 0.49	< 0.49	< 0.49	ND
	D6.5-S3(3-4)	2/14/2011	3-4	< 0.51	< 0.51	< 0.51	< 0.51	ND
	D6.5-S20 (FD)	2/14/2011	3-4	< 0.54	< 0.54	< 0.54	< 0.54	ND
D7	D7-S1(0-0.5)	2/14/2011	0-0.5	< 0.5	1.9	5.2	2.8	9.9
	D7-S2(1-3)	2/14/2011	1-3	< 0.53	10	14	9	33
	D7-S3(3-5)	2/14/2011	3-5	< 0.55	< 0.55	< 0.55	< 0.55	ND
	D7-S4(5-7)	2/14/2011	5-7	< 0.63	< 0.63	< 0.63	< 0.63	ND
D8	D8-S1(0-0.5)	2/15/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	D8-S2(1-3)	2/15/2011	1-3	< 0.53	4.2	12	3.8	20
	D8-S3(3-5)	2/15/2011	3-5	< 0.59	< 0.59	< 0.59	< 0.59	ND
	D8-S4(5-7)	2/15/2011	5-7	< 0.63	< 0.63	< 0.63	< 0.63	ND
E3	E3-S1(0-0.5)	2/10/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	E3-S2(1-3)	2/10/2011	1-3	< 0.54	3.6	4.7	1.9	10.2
	E3-S3(3-5)	2/10/2011	3-5	< 0.57	8.1	9	3.3	20.4
	E3-S4(5-7)	2/10/2011	5-7	< 0.53	0.63	0.68	< 0.53	1.31

Table 2. Chemical Testing Results - Soil
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

Boring Location	Sample Name	Sample Date	Sample Depth (ft)	Analyte Concentration (mg/kg)				
				Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
E4	E4-S1(0-0.5)	2/15/2011	0-0.5	< 0.55	< 0.55	< 0.55	< 0.55	ND
	E4-S2(1-3)	2/15/2011	1-3	< 0.54	< 0.54	< 0.54	< 0.54	ND
	E4-S3(3-4)	2/15/2011	3-4	< 0.58	4.4	9.4	4.1	17.9
E5	E5-S1(0-0.5)	2/11/2011	0-0.5	< 0.51	< 0.51	< 0.51	< 0.51	ND
E6	E6-S1(0-0.5)	2/15/2011	0-0.5	< 0.66	< 0.66	< 0.66	< 0.66	ND
	E6-S2(1-3)	2/15/2011	1-3	< 0.58	9.6	20	7.3	36.9
	E6-S3(3-5)	2/15/2011	3-5	< 0.58	< 0.58	< 0.58	< 0.58	ND
	E6-S4(5-7)	2/15/2011	5-7	< 0.59	< 0.59	< 0.59	< 0.59	ND
E7	E7-S1(0-0.5)	2/14/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	E7-S2(1-3)	2/14/2011	1-3	< 0.5	< 0.5	< 0.5	< 0.5	ND
	E7-S3(3-5)	2/14/2011	3-5	< 0.59	< 0.59	< 0.59	< 0.59	ND
	E7-S4(5-7)	2/14/2011	5-7	< 0.59	< 0.59	< 0.59	< 0.59	ND
E8	E8-S1(0-0.5)	2/15/2011	0-0.5	< 0.51	< 0.51	< 0.51	< 0.51	ND
	E8-S2(1-3)	2/15/2011	1-3	< 0.53	< 0.53	15	3.2	18.2
	E8-S3(3-5)	2/15/2011	3-5	< 0.64	< 0.64	< 0.64	< 0.64	ND
	E8-S4(5-7)	2/15/2011	5-7	< 0.73	< 0.73	< 0.73	< 0.73	ND
E9	E9-S1(0-0.5)	2/15/2011	0-0.5	< 0.5	< 0.5	< 0.5	< 0.5	ND
	E9-S2(1-3)	2/15/2011	1-3	< 0.53	4.2	3.1	0.71	8.01
	E9-S3(3-5)	2/15/2011	3-5	6.7	< 0.57	5.2	3.2	15.1
	E9-S20 (FD)	2/15/2011	3-5	3.6	< 0.57	3.4	2	9
	E9-S4(5-7)	2/15/2011	5-7	< 0.58	< 0.58	< 0.58	< 0.58	ND
EF8	EF8-S1(0-0.5)	2/16/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	EF8-S2(1-3)	2/16/2011	1-3	< 0.51	4.6	2.5	0.55	7.65
	EF8-S3(3-3.5)	2/16/2011	3-3.5	< 0.53	13	8	2.1	23.1
EF9	EF9-S1(0-0.5)	2/15/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	EF9-S2(1-3)	2/15/2011	1-3	< 0.6	< 0.6	0.95	< 0.6	0.95
F2	F2-S1(0-0.5)	2/14/2011	0-0.5	< 0.53	< 0.53	< 0.53	< 0.53	ND
	F2-S20 (FD)	2/14/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	F2-S2(1-3)	2/14/2011	1-3	< 0.54	17	15	2.9	34.9
F5	F5-S1(0-0.5)	2/11/2011	0-0.5	< 0.51	< 0.51	< 0.51	< 0.51	ND
	F5-S2(1-3)	2/11/2011	1-3	< 0.48	< 0.48	0.58	< 0.48	0.58
	F5-S3(3-5)	2/11/2011	3-5	< 0.59	< 0.59	< 0.59	< 0.59	ND
	F5-S4(5-7)	2/11/2011	5-7	< 0.62	< 0.62	< 0.62	< 0.62	ND
F6	F6-S1(0-0.5)	2/14/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	F6-S2(1-3)	2/14/2011	1-3	< 0.49	< 0.49	< 0.49	< 0.49	ND
	F6-S3(3-5)	2/14/2011	3-5	< 0.49	< 0.49	< 0.49	< 0.49	ND
	F6-S4(5-7)	2/14/2011	5-7	< 0.61	< 0.61	< 0.61	< 0.61	ND
F7	F7-S1(0-0.5)	2/14/2011	0-0.5	< 0.5	< 0.5	< 0.5	< 0.5	ND
	F7-S2(1-3)	2/14/2011	1-3	< 0.58	< 0.58	0.84	< 0.58	0.84
	F7-S3(3-4.5)	2/14/2011	3-4.5	< 0.59	< 0.59	15	4.5	19.5
F7.5	F7.5-S1(0-0.5)	2/14/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	F7.5-S2(1-3)	2/14/2011	1-3	< 0.48	< 0.48	< 0.48	1.1	1.1
	F7.5-S3(3-5)	2/14/2011	3-5	< 0.58	< 0.58	< 0.58	7.7	7.7
	F7.5-S4(5-7)	2/14/2011	5-7	< 0.55	< 0.55	< 0.55	< 0.55	ND

Table 2. Chemical Testing Results - Soil
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

Boring Location	Sample Name	Sample Date	Sample Depth (ft)	Analyte Concentration (mg/kg)				
				Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
G2	G2-S1(0-0.5)	2/14/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	G2-S2(1-3)	2/14/2011	1-3	< 3.7	44	42	14	**100**
	G2-S20 (FD)	2/14/2011	1-3	< 3.3	27	27	10	**64**
G5	G5-S1(0-0.5)	2/11/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	G5-S2(1-3)	2/11/2011	1-3	< 0.6	3.5	4	1.6	9.1
	G5-S3(3-5)	2/11/2011	3-5	< 0.54	2.2	0.76	< 0.54	2.96
	G5-S4(5-7)	2/11/2011	5-7	< 0.59	< 0.59	< 0.59	< 0.59	ND
G6	G6-S1(0-0.5)	2/11/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	G6-S2(1-3)	2/11/2011	1-3	< 0.5	< 0.5	< 0.5	< 0.5	ND
	G6-S3(3-5)	2/11/2011	3-5	< 0.57	2.7	2.8	0.76	6.26
	G6-S4(5-7)	2/11/2011	5-7	< 0.61	< 0.61	< 0.61	< 0.61	ND
G7	G7-S1(0-0.5)	2/14/2011	0-0.5	< 0.49	< 0.49	< 0.49	< 0.49	ND
	G7-S2(1-3)	2/14/2011	1-3	< 0.54	< 0.54	< 0.54	< 0.54	ND
	G7-S20 (FD)	2/14/2011	1-3	< 0.53	< 0.53	< 0.53	< 0.53	ND
	G7-S3(3-5)	2/14/2011	3-5	< 0.54	3.8	4.3	2.1	10.2
	G7-S4(5-6)	2/14/2011	5-6	< 0.59	1.4	2	0.77	4.17
G7.5	G7.5-S1(0-0.5)	2/14/2011	0-0.5	< 0.5	< 0.5	< 0.5	< 0.5	ND
	G7.5-S2(1-3)	2/14/2011	1-3	< 0.53	< 0.53	3.8	0.72	4.52
	G7.5-S3(3-4)	2/14/2011	3-4	< 0.51	0.85	< 0.51	< 0.51	0.85
H2	H2-S1(0-0.5)	2/14/2011	0-0.5	< 0.51	0.63	2.9	1	4.53
	H2-S2(1-3)	2/14/2011	1-3	< 0.5	4.3	4.3	1.6	10.2
	H2-S3(3-5)	2/14/2011	3-5	< 0.5	< 0.5	< 0.5	< 0.5	ND
	H2-S4(5-7)	2/14/2011	5-7	< 0.59	< 0.59	0.8	< 0.59	0.8
H5	H5-S1(0-0.5)	2/11/2011	0-0.5	< 0.53	< 0.53	< 0.53	< 0.53	ND
	H5-S2(1-3)	2/11/2011	1-3	< 0.63	< 0.63	< 0.63	< 0.63	ND
	H5-S3(3-5)	2/11/2011	3-5	< 0.58	< 0.58	< 0.58	< 0.58	ND
	H5-S20 (FD)	2/11/2011	3-5	< 0.58	< 0.58	< 0.58	< 0.58	ND
	H5-S4(5-7)	2/11/2011	5-7	< 0.63	< 0.63	1.1	0.64	1.74
H5.5	H5.5-S1(0-0.5)	2/11/2011	0-0.5	< 0.52	0.67	0.99	1.3	2.96
	H5.5-S20 (FD)	2/11/2011	0-0.5	< 0.51	< 0.51	0.68	0.88	1.56
	H5.5-S2(1-3)	2/11/2011	1-3	3	< 0.54	3.4	2.5	8.9
	H5.5-S3(3-5)	2/11/2011	3-5	2.1	< 0.52	1.8	1.2	5.1
H6	H6-S1(0-0.5)	2/11/2011	0-0.5	< 0.64	< 0.64	< 0.64	< 0.64	ND
H6.5	H6.5-S1(0-0.5)	2/15/2011	0-0.5	< 0.53	< 0.53	< 0.53	< 0.53	ND
	H6.5-S2(1-2.5)	2/15/2011	1-2.5	< 0.48	< 0.48	0.9	< 0.48	0.9
H7	H7-S1(0-0.5)	2/14/2011	0-0.5	< 0.51	< 0.51	< 0.51	< 0.51	ND
	H7-S2(1-3)	2/14/2011	1-3	< 0.52	< 0.52	< 0.52	0.73	0.73
	H7-S3(3-4)	2/14/2011	3-4	< 0.55	7.2	9.9	3.5	20.6
H7.5	H7.5-S1(0-0.5)	2/15/2011	0-0.5	< 0.57	< 0.57	< 0.57	< 0.57	ND
	H7.5-S2(1-3)	2/15/2011	1-3	< 0.53	< 0.53	< 0.53	< 0.53	ND
	H7.5-S3(3-5)	2/15/2011	3-5	< 0.53	3.3	5	1.9	10.2
	H7.5-S4(5-7)	2/15/2011	5-7	< 0.61	< 0.61	< 0.61	< 0.61	ND
	H7.5-S20 (FD)	2/15/2011	5-7	< 0.66	< 0.66	< 0.66	< 0.66	ND

Table 2. Chemical Testing Results - Soil
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

Boring Location	Sample Name	Sample Date	Sample Depth (ft)	Analyte Concentration (mg/kg)				
				Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
I2	I2-S1(0-0.5)	2/10/2011	0-0.5	< 0.55	< 0.55	< 0.55	< 0.55	ND
	I2-S2(1-2.5)	2/10/2011	1-2.5	< 0.58	8.2	8.1	3.4	19.7
	I2-S20 (FD)	2/10/2011	1-2.5	< 0.54	1.1	0.71	< 0.54	1.81
J2	J2-S1(0-0.5)	2/10/2011	0-0.5	< 0.55	< 0.55	< 0.55	< 0.55	ND
	J2-S2(1-2.5)	2/10/2011	1-2.5	< 0.51	< 0.51	3.7	0.84	4.54
J3	J3-S1(0-0.5)	2/10/2011	0-0.5	< 0.57	< 0.57	< 0.57	< 0.57	ND
	J3-S2(1-3)	2/10/2011	1-3	27	< 0.56	20	10	**57**
J4	J4-S1(0-0.5)	2/10/2011	0-0.5	< 0.55	< 0.55	< 0.55	< 0.55	ND
	J4-S2(1-3)	2/10/2011	1-3	< 0.53	< 0.53	< 0.53	< 0.53	ND
	J4-S20 (FD)	2/10/2011	1-3	< 0.55	< 0.55	< 0.55	< 0.55	ND
	J4-S3(3-5)	2/10/2011	3-5	< 0.58	< 0.58	< 0.58	< 0.58	ND
	J4-S4(5-7)	2/10/2011	5-7	< 0.61	< 0.61	< 0.61	< 0.61	ND
P1	P1-S1(0-0.5)	2/10/2011	0-0.5	< 0.48	< 0.48	< 0.48	< 0.48	ND
P2	P2-S1(0-0.5)	2/10/2011	0-0.5	< 0.5	< 0.5	< 0.5	< 0.5	ND
P3	P3-S1(0-0.5)	2/10/2011	0-0.5	< 0.53	< 0.53	< 0.53	< 0.53	ND
P4	P4-S2(1-3)	2/10/2011	1-3	< 0.53	< 0.53	1.3	0.78	2.08
	P4-S3(3-5)	2/10/2011	3-5	< 0.59	< 0.59	< 0.59	< 0.59	ND
	P4-S4(5-7)	2/10/2011	5-7	< 0.61	< 0.61	< 0.61	< 0.61	ND
P5	P5-S1(0-0.5)	2/11/2011	0-0.5	< 0.5	< 0.5	< 0.5	< 0.5	ND
	P5-S2(1-3)	2/11/2011	1-3	< 0.52	< 0.52	< 0.52	< 0.52	ND
	P5-S3(3-4)	2/11/2011	3-4	< 0.56	< 0.56	< 0.56	< 0.56	ND
P6	P6-S1(0-0.5)	2/11/2011	0-0.5	< 0.53	< 0.53	< 0.53	< 0.53	ND
P10	P10-S1(0-0.5)	2/15/2011	0-0.5	< 0.51	< 0.51	< 0.51	< 0.51	ND
	P10-S2(1-3)	2/15/2011	1-3	< 0.53	< 0.53	< 0.53	< 0.53	ND
P11	P11-S1(0-0.5)	2/14/2011	0-0.5	< 0.51	< 0.51	< 0.51	< 0.51	ND
	P11-S2(1-3)	2/14/2011	1-3	< 0.5	< 0.5	< 0.5	< 0.5	ND
	P11-S3(3-5)	2/14/2011	3-5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	P11-S4(5-7)	2/14/2011	5-7	< 0.55	< 0.55	< 0.55	< 0.55	ND
P12	P12-S1(0-0.5)	2/14/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	P12-S2(1-3)	2/14/2011	1-3	< 0.54	< 0.54	< 0.54	< 0.54	ND
	P12-S20 (FD)	2/14/2011	1-3	< 0.55	3.8	6	1.8	11.6
	P12-S3(3-5)	2/14/2011	3-5	5.5	< 0.62	< 0.62	< 0.62	5.5
	P12-S4(5-7)	2/14/2011	5-7	< 0.58	< 0.58	< 0.58	< 0.58	ND
P13	P13-S1(0-0.5)	2/16/2011	0-0.5	< 0.56	< 0.56	< 0.56	< 0.56	ND
	P13-S2(1-3)	2/16/2011	1-3	< 0.74	< 0.74	< 0.74	< 0.74	ND
	P13-S3(3-5)	2/16/2011	3-5	< 0.52	< 0.52	< 0.52	< 0.52	ND
P14	P14-S1(0-0.5)	2/15/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	P14-S2(1-3)	2/15/2011	1-3	< 0.54	< 0.54	< 0.54	< 0.54	ND
	P14-S3(3-4)	2/15/2011	3-4	< 0.56	< 0.56	< 0.56	< 0.56	ND
P15	P15-S1(0-0.5)	2/16/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	P15-S2(1-3)	2/16/2011	1-3	< 0.57	< 0.57	< 0.57	< 0.57	ND
	P15-S3(3-5)	2/16/2011	3-5	< 0.54	< 0.54	< 0.54	< 0.54	ND

Table 2. Chemical Testing Results - Soil
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

Boring Location	Sample Name	Sample Date	Sample Depth (ft)	Analyte Concentration (mg/kg)				
				Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
P16	P16-S1(0-0.5)	2/16/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	P16-S2(1-3)	2/16/2011	1-3	< 0.58	< 0.58	< 0.58	< 0.58	ND
	P16-S3(3-5)	2/16/2011	3-5	< 0.55	< 0.55	< 0.55	< 0.55	ND
	P16-S20 (FD)	2/16/2011	3-5	< 0.6	< 0.6	< 0.6	< 0.6	ND
	P16-S4(5-7)	2/16/2011	5-7	< 0.58	< 0.58	< 0.58	< 0.58	ND
P17	P17-S1(0-0.5)	2/16/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	P17-S2(1-3)	2/16/2011	1-3	< 0.61	< 0.61	< 0.61	< 0.61	ND
	P17-S3(3-5)	2/16/2011	3-5	< 0.12	< 0.12	< 0.12	< 0.12	ND
	P17-S4(5-7)	2/16/2011	5-7	< 0.64	< 0.64	< 0.64	< 0.64	ND
P18	P18-S1(0-0.5)	2/16/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	P18-S2(1-3)	2/16/2011	1-3	< 0.6	< 0.6	< 0.6	< 0.6	ND
	P18-S3(3-5)	2/16/2011	3-5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	P18-S4(5-7)	2/16/2011	5-7	< 0.53	2.7	3.8	1.2	7.7
P19	P19-S1(0-0.5)	2/14/2011	0-0.5	< 0.52	< 0.52	< 0.52	< 0.52	ND
	P19-S2(1-3)	2/14/2011	1-3	< 0.54	3.4	4.3	1.4	9.1
	P19-S3(3-5)	2/14/2011	3-5	< 0.69	< 0.69	< 0.69	< 0.69	ND
	P19-S20 (FD)	2/14/2011	3-5	< 0.66	< 0.66	< 0.66	< 0.66	ND
	P19-S4(5-7)	2/14/2011	5-7	< 0.54	< 0.54	< 0.54	< 0.54	ND
P20	P20-S1(0-0.5)	2/16/2011	0-0.5	< 0.56	< 0.56	< 0.56	< 0.56	ND
	P20-S2(1-3)	2/16/2011	1-3	< 0.59	2.3	3.2	0.95	6.45
	P20-S20 (FD)	2/16/2011	1-3	< 0.57	1.9	2.5	0.77	5.17
	P20-S3(3-5)	2/16/2011	3-5	< 0.55	2	2.6	0.79	5.39
	P20-S4(5-7)	2/16/2011	5-7	< 0.56	1.2	1.7	< 0.56	2.9
P21	P21-S1(0-0.5)	2/15/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	P21-S2(1-3)	2/15/2011	1-3	< 0.51	< 0.51	< 0.51	< 0.51	ND
	P21-S3(3-5)	2/15/2011	3-5	< 0.58	< 0.58	0.61	< 0.58	0.61
	P21-S4(5-7)	2/15/2011	5-7	< 0.57	< 0.57	< 0.57	< 0.57	ND
P22	P22-S1(0-0.5)	2/15/2011	0-0.5	< 0.57	< 0.57	< 0.57	< 0.57	ND
	P22-S20 (FD)	2/15/2011	0-0.5	< 0.54	< 0.54	< 0.54	< 0.54	ND
	P22-S2(1-3)	2/15/2011	1-3	< 0.56	0.94	1.9	0.56	3.4
	P22-S3(3-5)	2/15/2011	3-5	< 0.52	3.1	2.4	0.93	6.43
	P22-S4(5-7)	2/15/2011	5-7	< 0.61	1.2	3.1	< 0.61	4.3

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
2. PCBs = Polychlorinated Biphenyls
3. ft = feet
4. mg/kg = milligrams per kilogram
5. ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data for the laboratory reporting limit.
6. FD = The sample is a field duplicate of the preceding sample in the table.
7. Concentrations in **bold** equal or exceed 50 mg/kg.

Table 3. Chemical Testing Results - Groundwater
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

				Sample Location:	E3(MW)	E8(MW)		F5(MW)	H5(MW)	J4(MW)
				Sample Name:	E3(MW)	E8(MW)	AE8(MW) (FD)	F5(MW)	H5(MW)	J4(MW)
				Well Screen Interval (ft):	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16
				Sample Date:	3/2/2011	3/2/2011	3/2/2011	3/2/2011	3/2/2011	3/2/2011
Analyte	**Method**	**Units**	**MCP Method 1 Standards**							
			GW-2	**GW-3**						
Polychlorinated Biphenyls (PCBs)	SW8082	ug/l								
Aroclor 1016			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1221			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1232			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1242			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1248			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1254			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1260			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1262			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Aroclor 1268			NS	NS	< 0.22	< 0.22	< 0.23	< 0.21	< 0.23	< 0.23
Total PCBs			5	10	ND	ND	ND	ND	ND	ND

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the laboratory data sheets.
2. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
3. MCP = 310 CMR 40.0000 Massachusetts Contingency Plan with revisions effective December 14, 2007.
4. Method 1 Standards (e.g.,GW2), where identified, are cited from the MCP.
5. ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data sheets for the laboratory reporting limit.
6. NS = No MCP standard has been established for this analyte.
7. µg/L = micrograms per liter

Table 4. Soil Field Duplicate Sample Data
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

Sample Name	Sample Date	Total PCB Concentration (mg/kg)	Field Duplicate Name	Total PCB Concentration (mg/kg)	RPD (%)
E9-S3(3-5)	2/15/11	15.10	E9-S20	9	50.62
F2-S1(0-0.5)	2/14/11	ND	F2-S20	ND	----[a]
G2-S2(1-3)	2/14/11	100.00	G2-S20	64	43.90
G7-S2(1-2)	2/14/11	ND	G7-S20	ND	----[a]
H5-S3(3-5)	2/11/11	ND	H5-S20	ND	----[a]
H5.5-S1(0-0.5)	2/11/11	2.29	H5-S20	1.56	37.92
H7.5-S4(5-7)	2/15/11	ND	H7.5-S20	ND	----[a]
I2-S2(1-2.5)	2/10/11	19.7	I2-S20	1.81	166.34
J4-S2(1-3)	2/10/11	ND	J4-S20	ND	----[a]
P12-S2(1-3)	2/14/11	ND	P12-S20	11.6	----[b]
P16-S3(3-5)	2/16/11	ND	P16-S20	ND	----[a]
P19-S3(3-5)	2/14/11	ND	P19-S20	ND	----[a]
P20-S2(1-3)	2/16/11	6.45	P20-S20	5.17	22.03
P22-S1(0-0.5)	2/15/11	ND	P22-S20	ND	----[a]
C8-S3(3-4.5)	2/16/11	7.88	C8-S20	8	1.51
D6.5-S3(3-4)	2/14/11	ND	D6.5-S20	ND	----[a]

General Notes:

1. PCB = Polychlorinated biphenyls.
2. RPD = Relative Percent Difference (calculated by dividing the difference of the two values by the average of the two values).
3. mg/kg = milligrams per kilogram.
4. ND = The analyte was not detected above the laboratory reporting limit. See the laboratory data for the laboratory reporting limit.
5. "---[a]" means RPD not calculated because PCBs were not detected above the laboratory reporting limit in either sample of the duplicate pair.
6. "---[b]" means RPD not calculated because PCBs were not detected above the laboratory reporting limit in at least one of the samples.

SITE COORDINATES:

Latitude:	N 42° 23' 01.43"
Longitude	W 71° 31' 24.64"
UTM:	4,694,440mN
(*Zone 19*)	330,632mE

0 1000 2000 4000 6000

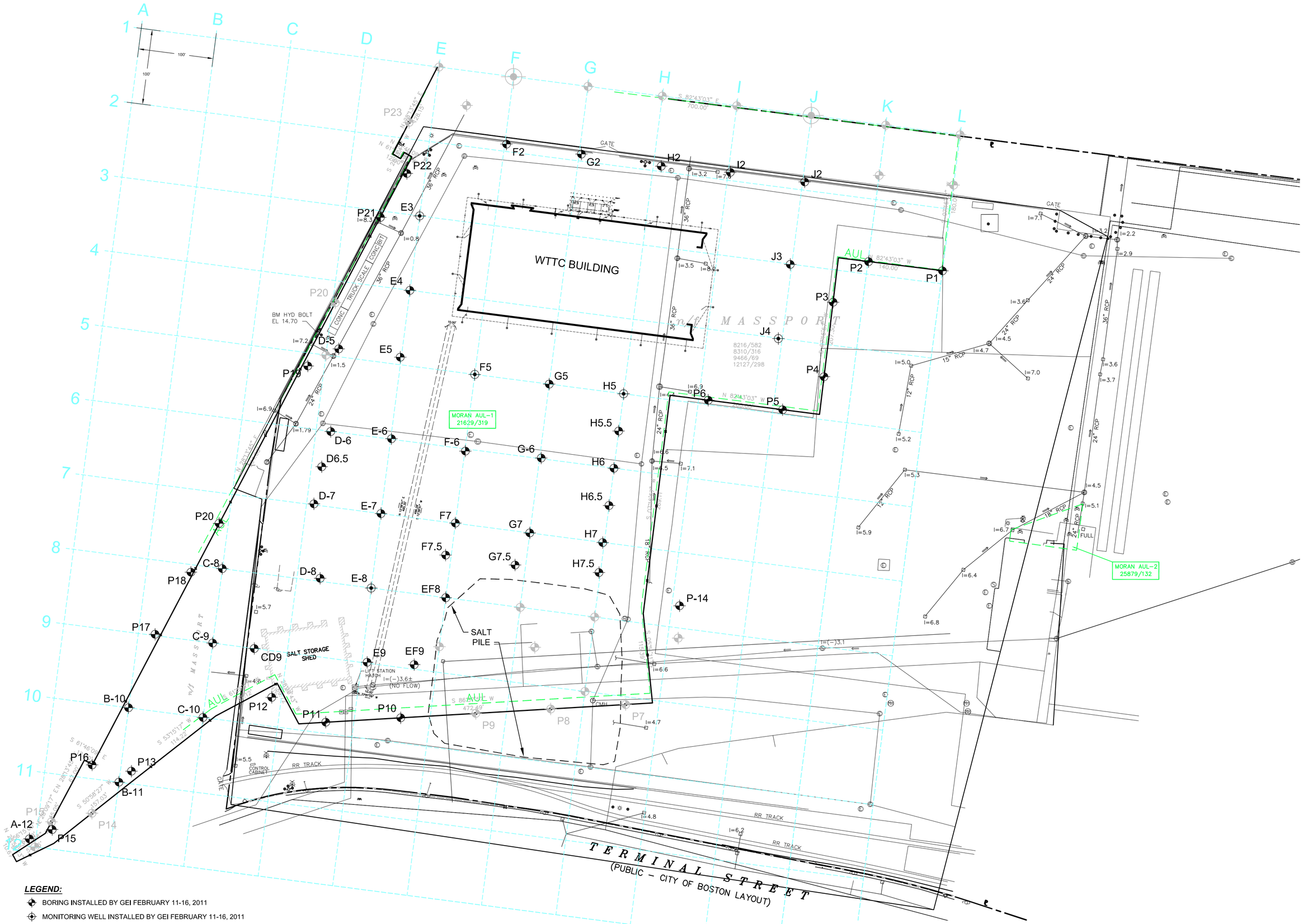
SCALE, FEET

This Image provided by MassGIS is from U.S.G.S.
Topographic 7.5 X 15 Minute Series
Boston North, MA Quadrangle, 1985.
Datum is National Geodetic Vertical Datum (NGVD).
Contour Interval is 3 Meters.

MASSACHUSETTS
QUADRANGLE LOCATION

Risk-Based Clean-up Plan Former Schiavone Property - Moran Terminal Charlestown, Massachusetts	GEI Consultants	SITE LOCATION MAP
MassPort Boston, Massachusetts	Project 09150-3	August 2011 Fig. 1

M:\DRAFTING\2009\09150 WTTC\09150-3\091503-02



LEGEND:

- BORING INSTALLED BY GEI FEBRUARY 11-16, 2011
- MONITORING WELL INSTALLED BY GEI FEBRUARY 11-16, 2011
- PROPOSED BORING BY GEI FEBRUARY 2011. BORING NOT INSTALLED BECAUSE LOCATION WAS INACCESSIBLE.

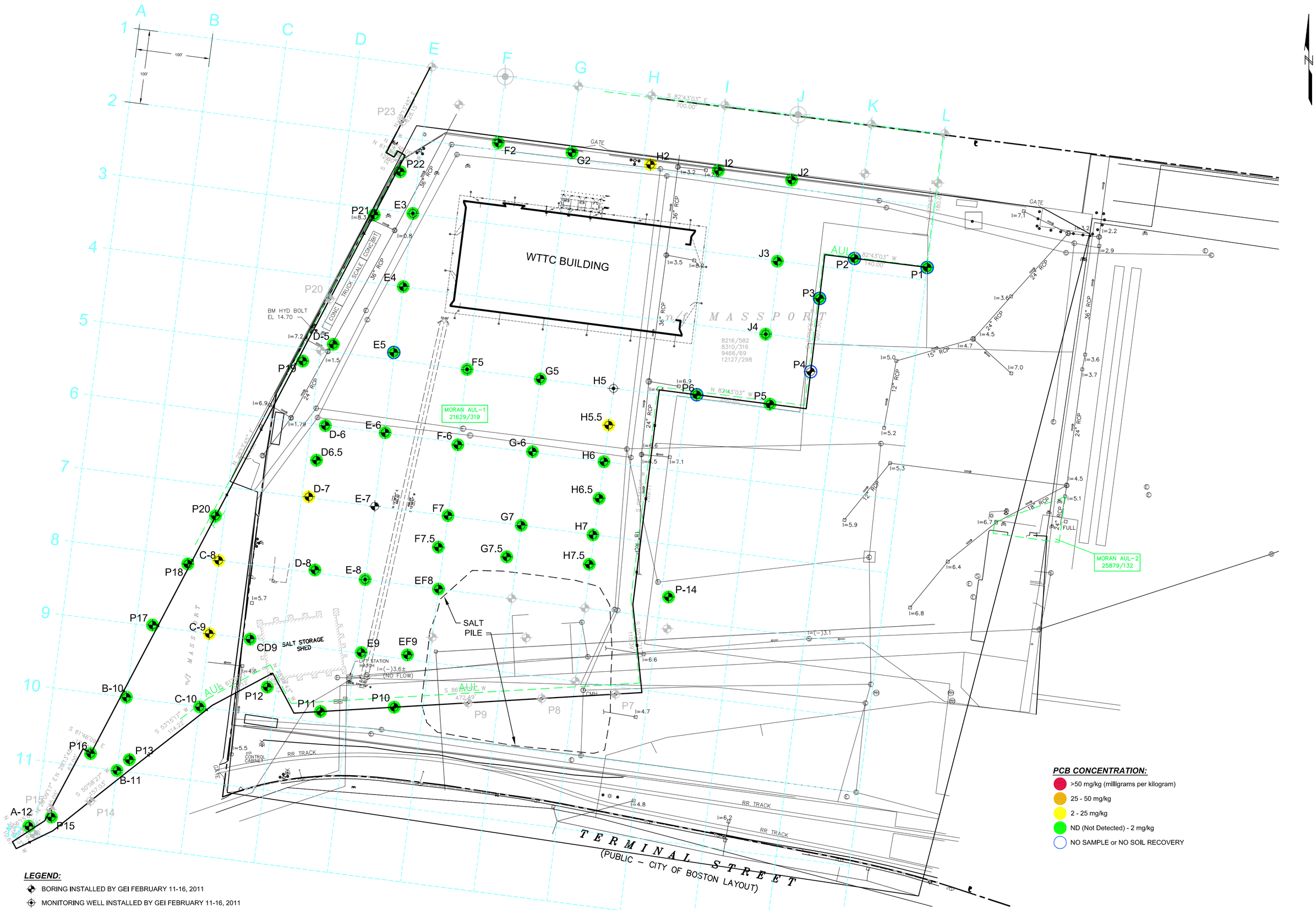
NOTES:

1. BASE PLAN FROM FIGURE TITLED "*MASSACHUSETTS PORT AUTHORITY, BOSTON, MASSACHUSETTS, ACTIVITY AND USE LIMITATION PLAN OF LAND, MORAN TERMINAL, TERMINAL STREET, BOSTON, (CHARLESTOWN DISTRICT) MA*," DATED 7/18/97.

0 80 160
SCALE, FEET

Risk Based Clean-up Plan Former Schiavone Property - Moran Terminal Charlestown, Massachusetts	GEI Consultants	BORING AND MONITORING WELL LOCATIONS
MassPort Boston, Massachusetts	Project 09150-3	August 2011 Fig. 2

M:\DRAFTING\2009\09150 WTTC\09150-3\091503-03



LEGEND:

- BORING INSTALLED BY GEI FEBRUARY 11-16, 2011
- MONITORING WELL INSTALLED BY GEI FEBRUARY 11-16, 2011
- PROPOSED BORING BY GEI FEBRUARY 2011. BORING NOT INSTALLED BECAUSE LOCATION WAS INACCESSIBLE.

NOTES:

1. BASE PLAN FROM FIGURE TITLED "*MASSACHUSETTS PORT AUTHORITY, BOSTON, MASSACHUSETTS, ACTIVITY AND USE LIMITATION PLAN OF LAND, MORAN TERMINAL, TERMINAL STREET, BOSTON, (CHARLESTOWN DISTRICT) MA*," DATED 7/18/97.

0 80 160
SCALE, FEET

Risk Based Clean-up Plan Former Schiavone Property - Moran Terminal Charlestown, Massachusetts	GEI Consultants	BORING PCB CONCENTRATIONS *0 TO 1 FEET*
MassPort Boston, Massachusetts	Project 09150-3	August 2011 Fig. 3a

M:\DRAFTING\2009\09150 WTTC\09150-3\091503-07

WTTC BUILDING

SALT PILE

SALT STORAGE SHED

MORAN AUL-1 21629/319

MORAN AUL-2 25879/132

TERMINAL STREET (PUBLIC – CITY OF BOSTON LAYOUT)

PCB CONCENTRATION:

- >50 mg/kg (milligrams per kilogram)
- 25 - 50 mg/kg
- 2 - 25 mg/kg
- ND (Not Detected) - 2 mg/kg
- NO SAMPLE or NO SOIL RECOVERY

LEGEND:

- BORING INSTALLED BY GEI FEBRUARY 11-16, 2011
- MONITORING WELL INSTALLED BY GEI FEBRUARY 11-16, 2011
- PROPOSED BORING BY GEI FEBRUARY 2011. BORING NOT INSTALLED BECAUSE LOCATION WAS INACCESSIBLE.

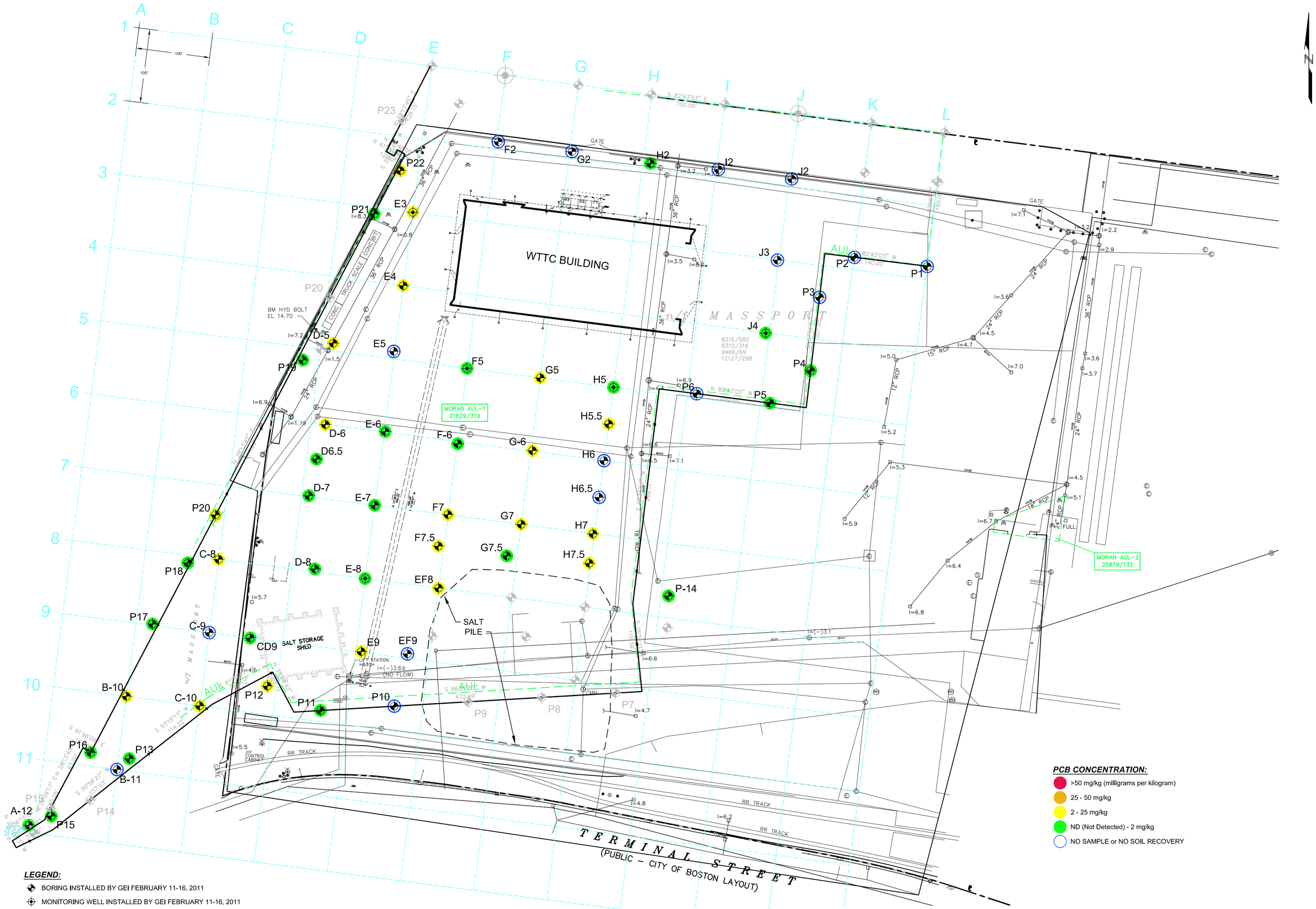
NOTES:

1. BASE PLAN FROM FIGURE TITLED "*MASSACHUSETTS PORT AUTHORITY, BOSTON, MASSACHUSETTS, ACTIVITY AND USE LIMITATION PLAN OF LAND, MORAN TERMINAL, TERMINAL STREET, BOSTON, (CHARLESTOWN DISTRICT) MA*," DATED 7/18/97.

0 80 160
SCALE, FEET

Risk Based Clean-up Plan Former Schiavone Property - Moran Terminal Charlestown, Massachusetts	GEI Consultants	BORING PCB CONCENTRATIONS *1 TO 3 FEET*
MassPort Boston, Massachusetts	Project 09150-3	August 2011 Fig. 3b

M:\DRAFTING\2009\09150 WTTC\09150-3\091503-07



Risk Based Clean-up Plan
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

MassPort
Boston, Massachusetts

GEI Consultants

BORING PCB CONCENTRATIONS
3 TO 5 FEET

Project 09150-3 | August 2011 | Fig. 3c

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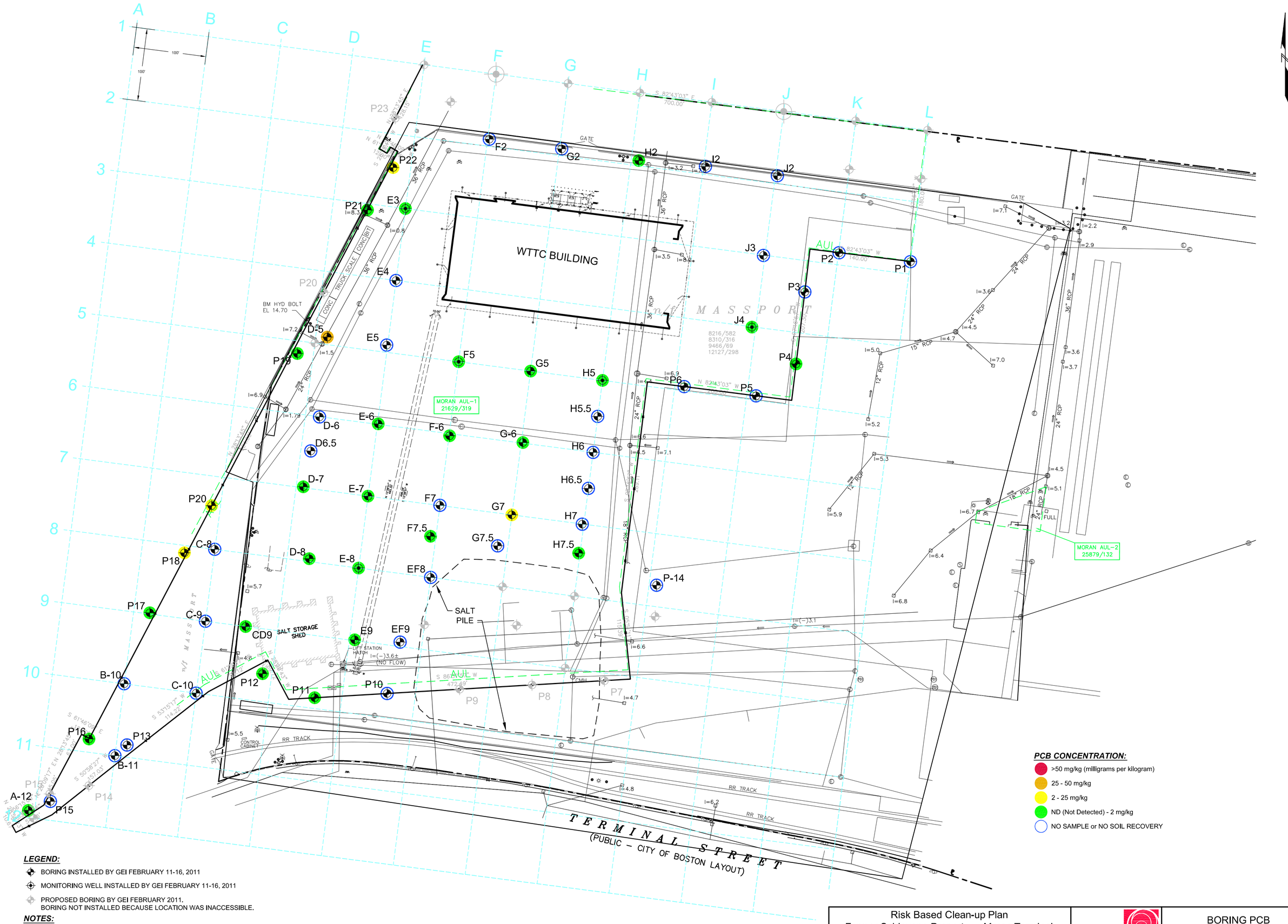

Risk Based Clean-up Plan
Former Schiavone Property - Moran Terminal
Charlestown, Massachusetts

MassPort
Boston, Massachusetts

GEI Consultants

BORING PCB CONCENTRATIONS
5 TO 7 FEET

Project 09150-3 | August 2011 | Fig. 3d

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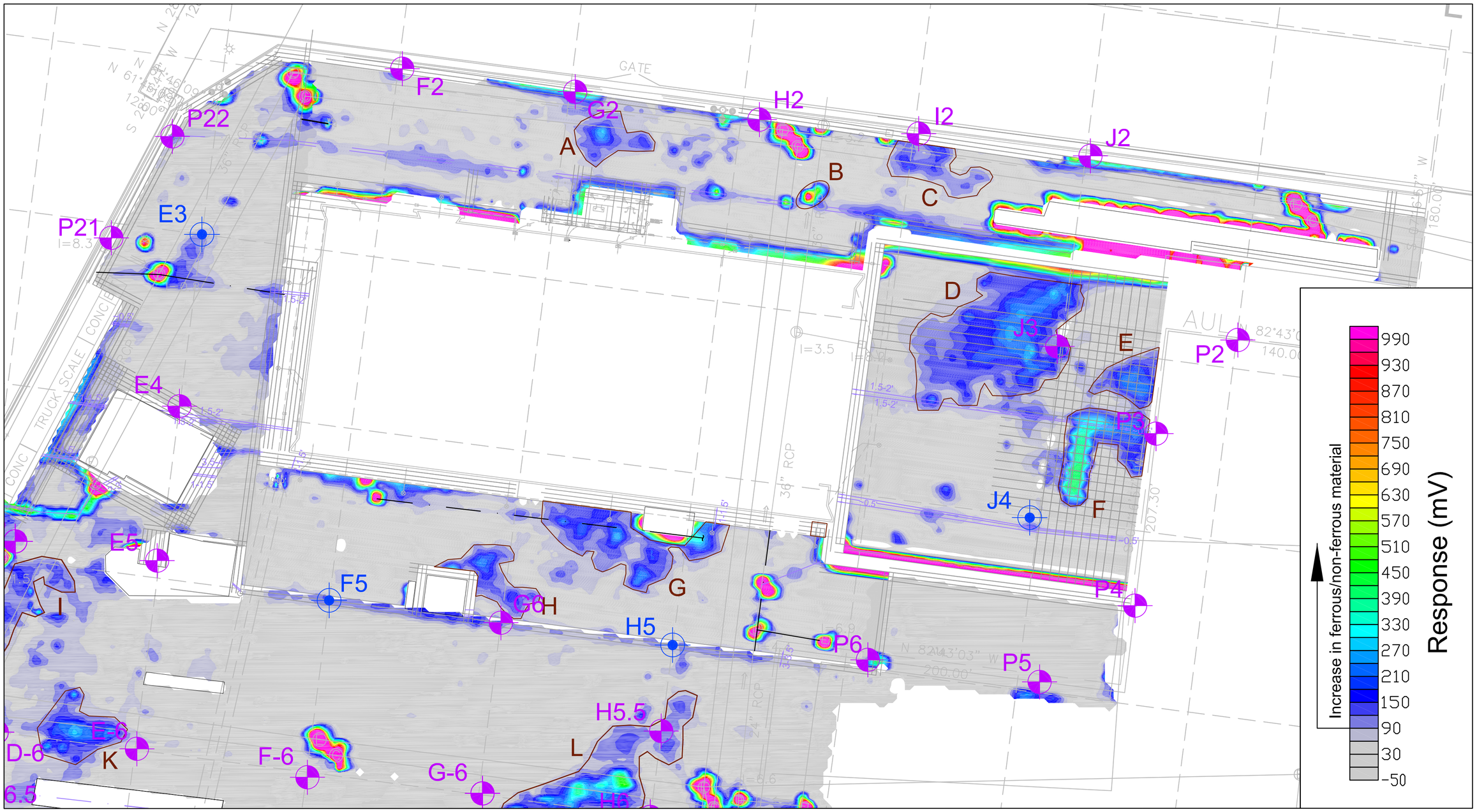


LEGEND

- GPR Traverse
- Obstruction
- EM- Identified Anomaly w/ ID
- GPR- Identified Anomaly w/ Approximate Depth
- GPR- Identified Linear Anomaly
- EM- Identified Linear Anomaly
- EM- Identified Potential Sewer/Drain Line
- EM- Identified Potential Water Line

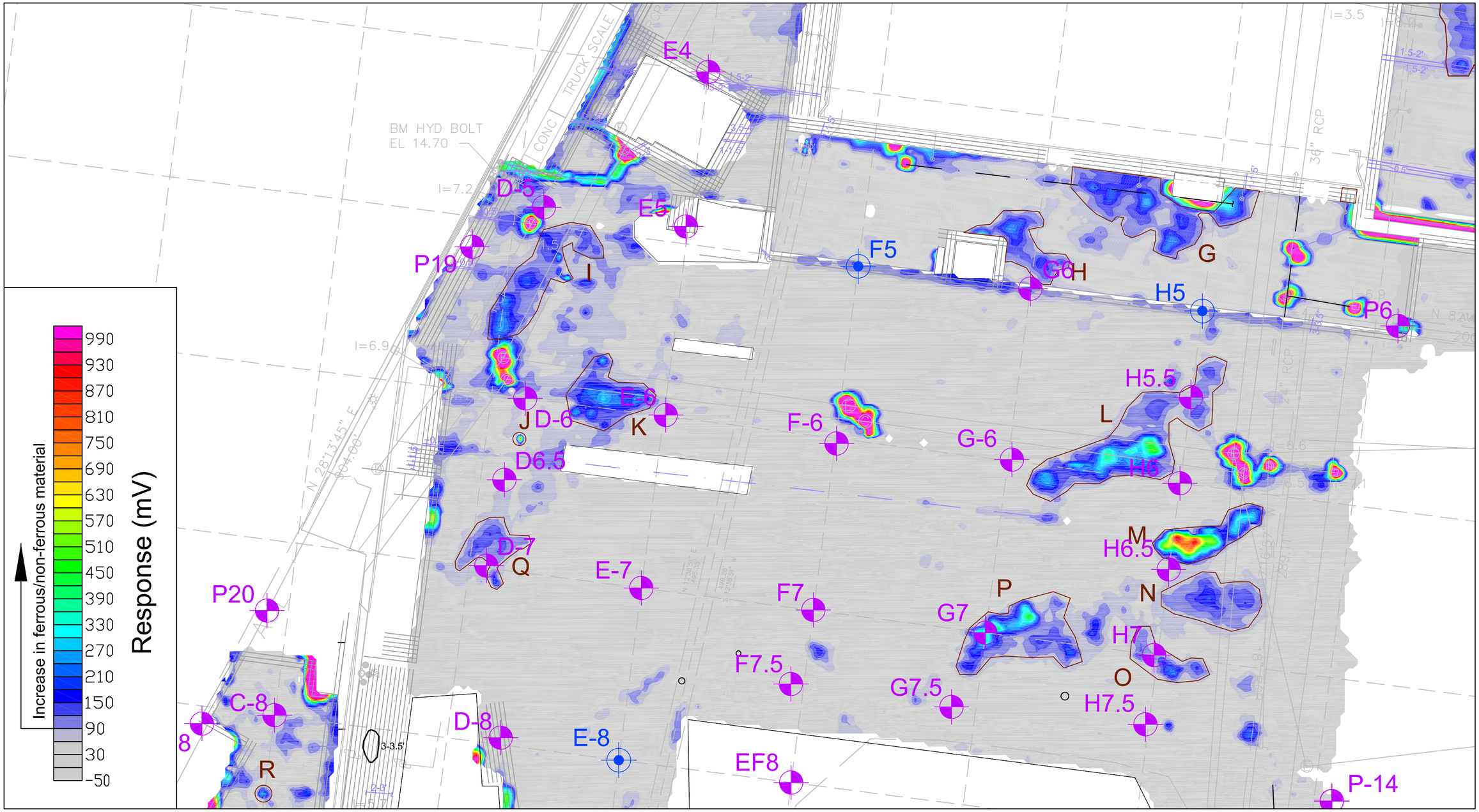
Notes:

1.) The base map provided by Hagar in their geophysical investigation report, dated April 2011.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The contour plot was derived using the EM61 Differential Channel.
5.) Gray colors are indicative of site-specific background response while blue-to-magenta indicate an increase in the amount of ferrous and non-ferrous materials within the subsurface.
6.) GPR depths are based on migration velocity calculations and are approximate.
7.) The "~" associated with GPR identified linear anomalies and/or utilities indicates the target could not be identified any farther than is indicated. The arrow indicates the target likely continues beyond the GPR survey area.

0 40 80
SCALE, FEET

Risk Based Clean-up Plan Former Schiavone Property - Moran Terminal Charlestown, Massachusetts	GEI Consultants	GEOPHYSICAL SURVEY ANOMALY MAP SECTION 1
MassPort Boston, Massachusetts	Project 09150-3	August 2011 Fig. 4a

M:\DRAFTING\2009\09150 WTTC\09150-3\091503-08



LEGEND

- GPR Traverse
- Obstruction
- EM- Identified Anomaly w/ ID
- GPR- Identified Anomaly w/ Approximate Depth
- GPR- Identified Linear Anomaly
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6.) GPR depths are based on migration velocity calculations and are approximate.
7.) The "~" associated with GPR identified linear anomalies and/or utilities indicates the target could not be identified any farther than is indicated. The arrow indicates the target likely continues beyond the GPR survey area.

0 40 80
SCALE, FEET

Risk Based Clean-up Plan Former Schiavone Property - Moran Terminal Charlestown, Massachusetts	GEI Consultants	GEOPHYSICAL SURVEY ANOMALY MAP SECTION 2
MassPort Boston, Massachusetts	Project 09150-3	August 2011 Fig. 4b

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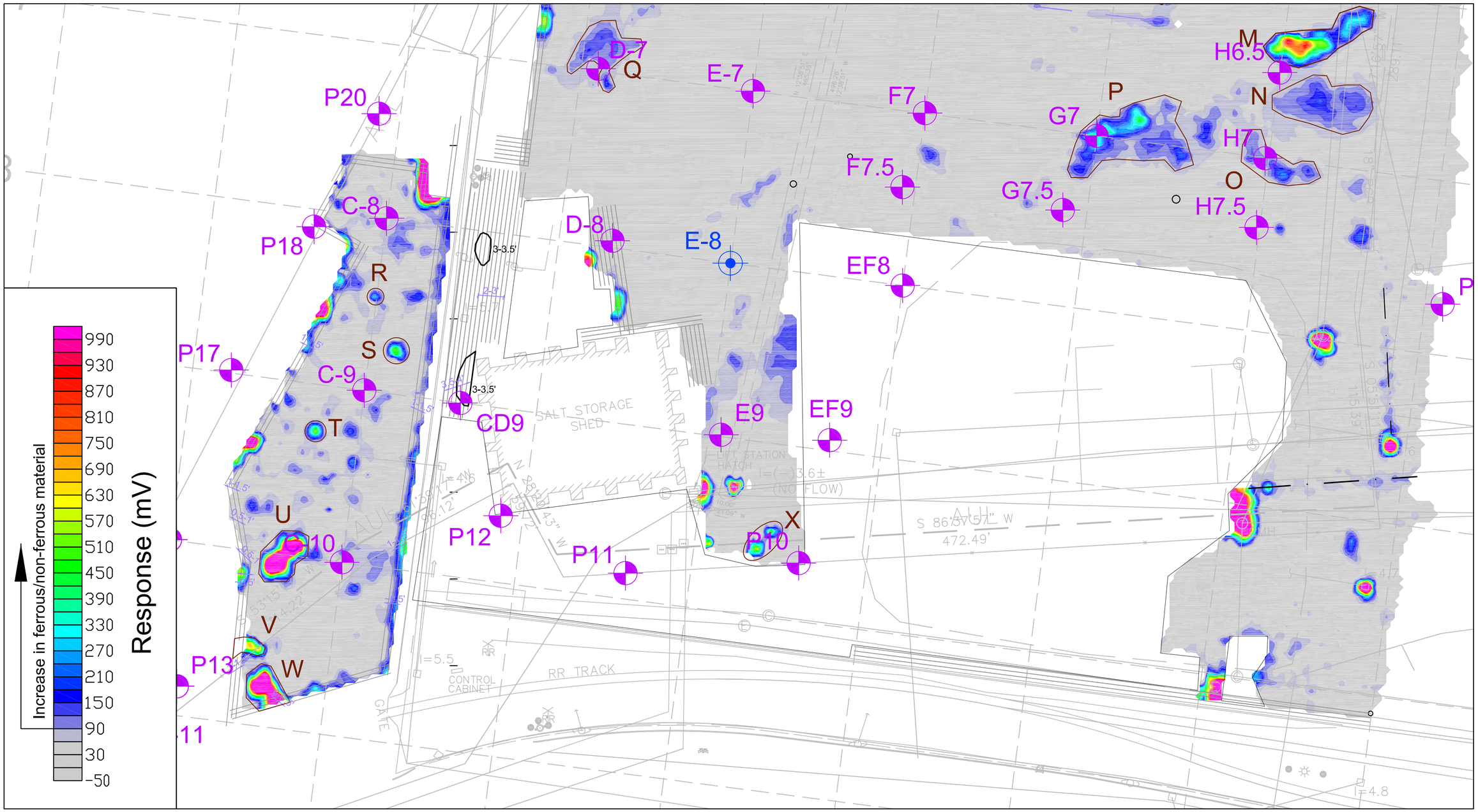

LEGEND

- GPR Traverse
- Obstruction
- EM- Identified Anomaly w/ ID
- GPR- Identified Anomaly w/ Approximate Depth
- GPR- Identified Linear Anomaly
- EM- Identified Linear Anomaly
- EM- Identified Potential Sewer/Drain Line
- EM- Identified Potential Water Line

Notes:

1.) The base map provided by Hagar in their geophysical investigation report, dated April 2011.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The contour plot was derived using the EM61 Differential Channel.
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0 40 80
SCALE, FEET

Risk Based Clean-up Plan Former Schiavone Property - Moran Terminal Charlestown, Massachusetts	GEI Consultants	GEOPHYSICAL SURVEY ANOMALY MAP SECTION 3
MassPort Boston, Massachusetts	Project 09150-3	August 2011 Fig. 4c

M:\DRAFTING\2009\09150 WTTC\09150-3\091503-08

Appendix A

Certification

CERTIFICATION IN ACCORDANCE WITH 40 CFR 761.61

All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site that is the subject of this document are on file at the following location:

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801

Contact: Ileen S. Gladstone, P.E., LSP, LEED AP
Phone: (781) 721-4012

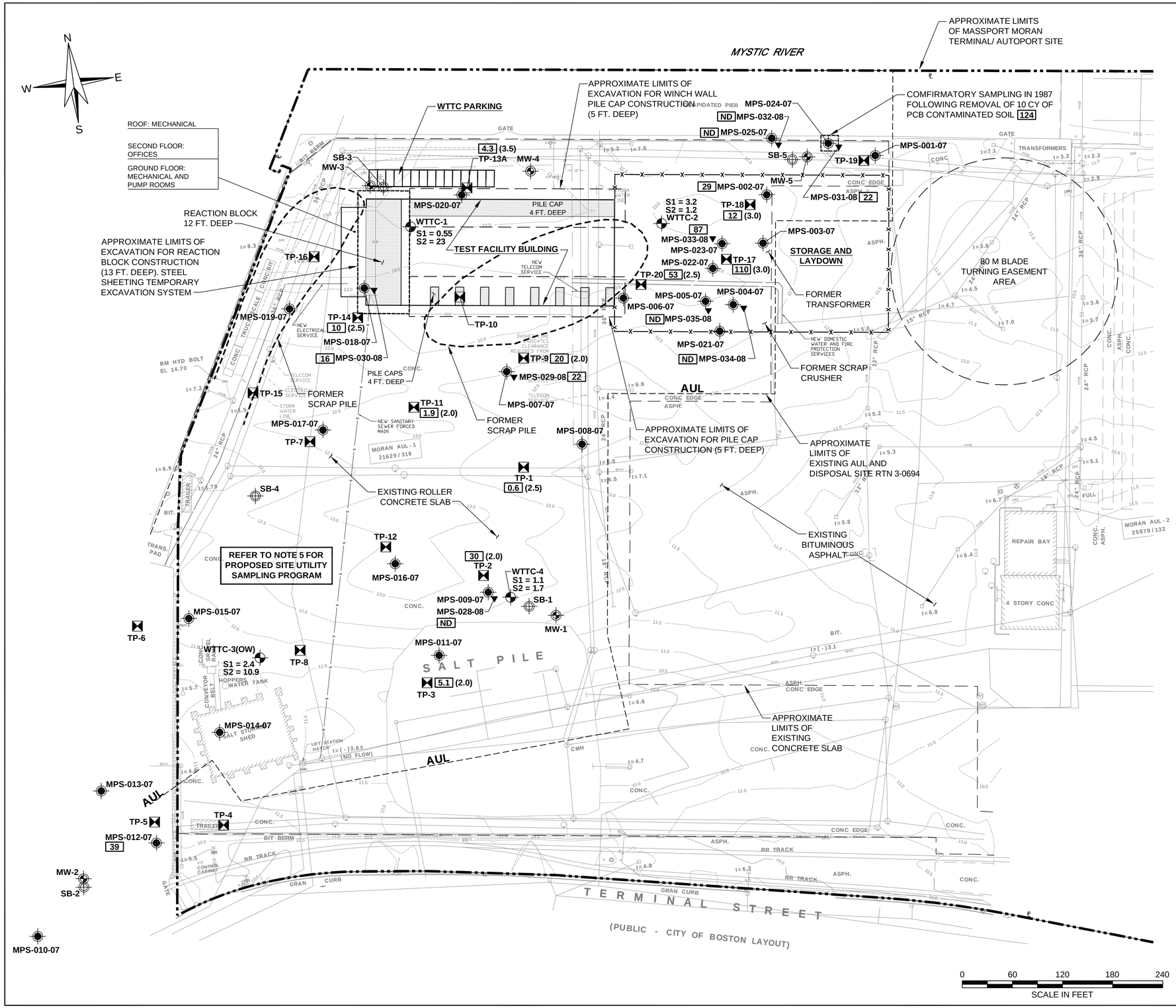
Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the sections of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

_____

Erik Bankey
Project Manager, Capital Programs and Environmental Affairs
Massachusetts Port Authority

Appendix B

Weston Site Plan

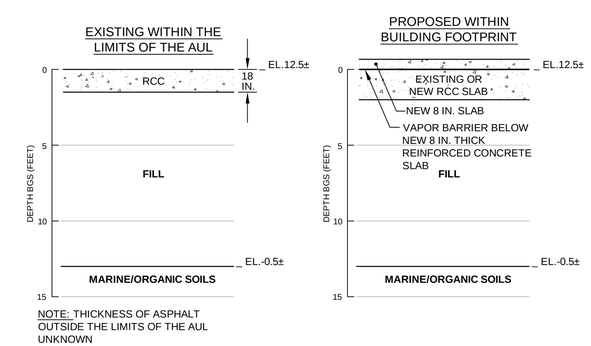


LEGEND:

WTTC-1 S1 = 2.4 S2 = 10.9	DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED BY GEOLOGIC-EARTH EXPLORATION, INC. OF NORFOLK, MASSACHUSETTS DURING THE PERIOD 5 THROUGH 20 JUNE 2008 AND MONITORED IN THE FIELD BY HALEY & ALDRICH, INC. PERSONNEL. TOTAL PCB CONCENTRATIONS IN PPM S1 (0 - 4 FT.); S2 (4 - 8 FT.)
SB-1	DESIGNATION AND APPROXIMATE LOCATION OF SOIL BORING COMPLETED BY ROY F. WESTON, INC. ON 28 JUNE AND 3 JULY 1997
MW-1	DESIGNATION AND APPROXIMATE LOCATION OF MONITORING WELL INSTALLED BY CONTEC, INC. DURING THE PERIOD 15 THROUGH 17 DECEMBER 1986
TP-1	DESIGNATION AND APPROXIMATE LOCATION OF TEST PIT EXCAVATED IN NOVEMBER 1986 AS PART OF A SITE INVESTIGATION BY HALEY & ALDRICH, INC.
MPS-001-07	DESIGNATION AND APPROXIMATE LOCATION OF SURFACE SOIL SAMPLE COLLECTED ON 11 AND 12 DECEMBER 1986 AS PART OF GEC's PHASE II INVESTIGATION
MPS-028-08 ▼	DESIGNATION AND APPROXIMATE LOCATION OF SUBSURFACE SOIL SAMPLE (INTERVAL 2 FT. - 2.5 FT. BGS) COLLECTED ON 17 DECEMBER 1986 AS PART OF GEC's PHASE II INVESTIGATION
(OW)	INDICATES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE
110 (3.0)	TOTAL PCB CONCENTRATION IN PPM (DEPTH FT.)

NOTES:

1. BASE PLAN TAKEN FROM A DRAWING TITLED "WIND TECHNOLOGY TESTING CENTER SITE PLAN", PREPARED BY ARCHITERRA, PROVIDED TO HALEY & ALDRICH, INC. ON 8 MAY 2009.
2. PREVIOUS EXPLORATIONS (1986 THROUGH 1997) TAKEN FROM PHASE II COMPREHENSIVE SITE ASSESSMENT AND RESPONSE ACTION OUTCOME REPORT PREPARED BY ROY F. WESTON ENGINEERS FOR THE MASSACHUSETTS PORT AUTHORITY, AND DATED 31 JULY 1997.
3. ELEVATIONS ARE IN FEET AND REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).
4. LOCATION AND GEOMETRY OF PROPOSED FOUNDATIONS TAKEN FROM SKETCHES PRODUCED BY LeMESSURIER CONSULTANTS, DATED 10 APRIL 2009.
5. UTILITY CORRIDORS TO BE SAMPLED ON A 10 FT. x 10 FT. GRID. FINAL LOCATIONS OF UTILITY CORRIDORS AND FINAL SAMPLING PROGRAM TO BE DETERMINED AT A LATER DATE.



NOTE: THICKNESS OF ASPHALT OUTSIDE THE LIMITS OF THE AUL UNKNOWN

SECTION THRU CAP

HALEY & ALDRICH

PROPOSED WIND TECHNOLOGY TESTING CENTER (WTTC)
MASSACHUSETTS PORT AUTHORITY - MORAN TERMINAL
CHARLESTOWN, MASSACHUSETTS

SITE AND PREVIOUS SUBSURFACE EXPLORATION LOCATION PLAN

SCALE: AS SHOWN
MAY 2009

FIGURE 1

J:\GRAPHICS\35239\35239-001-D006.DWG

Appendix C

Activity and Use Limitation

Form 1075

563

Disposal Site Name: Former Schiavone Property, 100 Terminal Street
DEP Release Tracking No. 3-0694

NOTICE OF ACTIVITY AND USE LIMITATION
M.G.L. C. 21e, §6 and 310 CMR 40.0000

This Notice of Activity and Use Limitation ("Notice") is made as of the 7th day of August 1997, by the Massachusetts Port Authority, Logan Office Center, 1 Harborside Drive, Boston, Massachusetts 02128, together with its successors and assigns, (collectively "Owner").

WITNESSETH:

WHEREAS, the Massachusetts Port Authority, of Boston, Suffolk County, Massachusetts is the owner in fee simple of that certain parcel of land located at 100 Terminal Street in the Charlestown Section of Boston, Suffolk County, Massachusetts, with the buildings and improvements thereon ("Property").

WHEREAS, said parcel of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof, Property is subject to this Notice of Activity and Use Limitation. The Property is described in a deed recorded in Suffolk County Registry of Deeds in Plan Book 8340, Page 316;

WHEREAS, the Portion of the Property ("Portion of the Property") is more specifically subject to this Notice of Activity and Use Limitation. The Portion of the Property is more particularly bounded as described in Exhibit A-1, attached hereto and made a part hereof. This Portion of the Property is shown on a plan to be recorded herewith;

WHEREAS, the Portion of the Property comprises a Disposal Site as the result of a release of oil and hazardous materials. Exhibit B is a sketch plan showing the relationship of the Portion of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said Disposal Site (to the extent such boundaries have been established). Exhibit B is attached hereto and made a part hereof; and,

WHEREAS, one or more response actions have been selected for the Disposal Site in accordance with M.G.L. c. 21e ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and hazardous material in soil and (b) the restriction of certain activities occurring in, on, through, over or under the Portion of the Property. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion"), dated July 30, 1997, (which is attached hereto as Exhibit C and made a part hereof):

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

37

1. Permitted Activities and Uses Set Forth in the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Portion of the Property:

i. All industrial and commercial uses of the area defined as the Portion of the Property that do not contact with soil are permitted, including those that are currently conducted.

ii. Subsurface construction projects can be undertaken at the Portion of the Property provided the project is under the supervision of a Licensed Site Professional, and is in accordance with the requirements for conducting a Release Abatement Measure (RAM) per 310 CMR 40.0440 or a Utility Related Abatement Measure (URAM) 310 CMR 40.0460, and provided that construction personnel are OSHA qualified in accordance with 40 CFR 1910.120 and there is a site specific health and safety plan prepared for hazardous materials operations.

iii. Other activities or uses of the Portion of the Property that do not involve or include a listed inconsistent use or activity are permitted.

iv. Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare or the environment that the activities and uses set forth in this paragraph.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Portion of the Property may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard, are as follows:

i. Use of the area defined as the Portion of the Property as a residence, children's school, children's day care center, children's playground, or other recreational use, unless measures are taken to prevent children twelve (12) years of age or younger from being inadvertently exposed to surface or subsurface soils.

ii. Agricultural activity or use of the area defined as the Portion of the Property where the soil is used for growing fruits or vegetables for human consumption.

iii. Activity or use of the area defined as the Portion of the Property that would likely cause physical or chemical deterioration, breakage, or structural damage to the pavement.

iv. Removal of pavement in the Portion of the Property which would likely result in direct contact, disturbance or relocation of, the contaminated soil beneath the pavement, unless such activity strictly involves limited, short-term utility or construction work conducted in accordance with the performance standards for

URAM set forth in 310 CMR 40.0460. In addition, the URAM must include Soil Management procedures pursuant to 310 CMR 40.0030, and/or all applicable workers Health and Safety practices must protect any utility worker and/or construction worker with regard to site specific chemicals of concern and exposure pathways. Pavement shall be immediately repaired or replaced.

v. Construction of buildings, building additions, paving, or other work, specifically within the Portion of the Property which may cause disturbance of the soils beneath the pavement, unless such activity is conducted in accordance with performance standards for a RAM as set forth in 301 CMR 40.0440. In addition, the RAM must include Soil Management procedures pursuant to 310 CMR 40.0030, and/or all applicable workers Health and Safety practices pursuant to 310 CMR 40.0018 The Health and Safety practices must protect any construction worker with regard to site specific chemicals of concern and exposure pathways. Pavement shall be immediately repaired or replaced.

3. Obligations and Conditions Set Forth in the AUL Opinion. If applicable, obligations and/or conditions to be undertaken and/or maintained at the Portion of the Property to maintain a condition of No Significant Risk, as set forth in the AUL Opinion, shall include the following:

i. Any activity or use of the Portion of the Property that could result in contact with soils requires preparation and implementation of a Health and Safety Plan under the guidance of an LSP. At a minimum, the Health and Safety Plan must inform underground utility workers and other workers who will come in contact with subsurface soils in the AUL area of (1) the nature and hazards of the contaminants identified in the soils, (2) potential exposure routes, (3) measures to prevent exposure, (4) protective clothing requirements, and any other health and safety measures appropriate for the activity or use.

ii. Any excavation or disturbance of the pavement or subsurface soils at the Portion of the Property requires preparation and implementation of an Excavation Plan under the guidance of an LSP. At a minimum, the Excavation Plan must (1) detail procedures for preventing surface and subsurface soils from being mixed with other soils or being replaced in the excavation at a depth that would allow exposure of the soils at ground surface, (2) describe the soil stockpile storage methods that will be used to prevent accidental exposure to the excavated soils, (3) contain procedures to limit access to the excavated subsurface soils and the excavation area by Site workers not covered by the Health and Safety Plan, children, Site Abutters, or accidental trespassers, (4) contain procedures for characterizing and disposing excavated soils, and (5) provide for the repair or replacement of the paving as soon as practicable.

iii. Any soils removed from the area defined as the Portion of the Property must be characterized and disposed of in accordance with federal, state and local regulations.

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the Portion of the Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by the LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq.*, as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare or the environment. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

5. Violation of a Response Action Outcome. The activities, use and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk or harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq.*, and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by an LSP in accordance with 310 CMR 40.1080 *et seq.*, the owner or operator of the Portion of the Property subject to this Notice at the time that the activities, uses and/or exposure change, shall comply with the requirements set forth in 310 CMR 40.0020

6. Incorporation Into Deeds, Mortgages, Leases and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed.

Owner hereby authorizes and consents to the filing and recordation of this Notice, said Notice to become effective when executed under seal by the undersigned LSP, and recorded with the appropriate Registry of Deeds.

WITNESS the execution hereof under seal this 7th day of August, 1997.

MASSACHUSETTS PORT AUTHORITY

Michael A. Grieco

COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss August 7, 1997

Then personally appeared the above named Michael A. Grieco and acknowledged the foregoing to be his free act and deed before me.

Marguerite Impiato
Notary Public:
My Commission Expires: 12-21-2001

The undersigned LSP hereby certifies that he executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in his Opinion this Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date: August 7, 1997

Anthony F. Andronico
LSP

COMMONWEALTH OF MASSACHUSETTS
ANTHONY F. ANDRONICO No. 6195 REGISTERED LICENSED SITE PROFESSIONAL

SUFFOLK, ss AUGUST 7, 1997

Then personally appeared the above named Anthony F. Andronico and acknowledged the foregoing to be his free act and deed before me.

Joanne M. Eydenberg
Notary Public:
My Commission Expires: 6-25-04

Upon recording, return to:

Erik Bankey
Massachusetts Port Authority
Logan Office Center
1 Harborside Drive
Boston, Massachusetts 02128

EXHIBIT A

Deed of Property

B 8340 P

8310 316

21629 308

Grantee's Address
470 Atlantic Avenue
Boston, Mass. 02210

DEED

Schiavone Realty Corporation of Massachusetts, a Connecticut corporation for consideration paid, grants to the Massachusetts Port Authority, a body politic and corporate organized and existing pursuant to provisions of Chapter 465 of the Acts of the General Court for the year 1956 and amendments thereto, a certain parcel of land in the Charlestown section of the City of Boston, County of Suffolk, Commonwealth of Massachusetts, containing about nine hundred fifty-seven thousand and seven hundred thirty-four (957,734) square feet, being shown on plan marked "Land in Boston, Mass., Boston & Maine Railroad to Schiavone Realty Corp. of Mass., J.F. Kerwin, Asst. Chief Engr., scale 1 in = 100 ft. May 1960", recorded Suffolk Deeds Book 7531, Page 88, being the same premises granted to Schiavone Realty Corp. of Mass., by Boston and Maine Railroad by deed December 30, 1960, recorded Suffolk Deeds Book 7531, Page 88, together with all rights, rights of way easements, privileges and licenses granted to the Grantor herein by said deed of Boston and Maine Railroad dated December 30, 1960, and recorded Suffolk Deeds Book 7531, Page 88.

This deed is given in the course of and in consideration of settlement of Grantor's claim of damages arising out of taking by the Massachusetts Port Authority pursuant to the provisions of General Laws, Chapter 79, which taking is recorded Suffolk Deeds Book 8216, Page 588, and in settlement of Grantor's Petition for assessment of damages now pending in Superior Court, Suffolk Docket Number 644856. Consideration of the interest and property conveyed being less than One Hundred Dollars ($100) no State Excise Stamps are affixed hereto.

21629 309

Deed GWS 12/8/69

8340 317

IN WITNESS WHEREOF, the said Schiavone Corporation of Massachusetts, has caused its corporate seal to be hereto affixed and these presents to be signed in its name and behalf by its proper officer thereunto duly authorized this 26th day of January in the year nineteen hundred and seventy

SCHIAVONE REALTY CORP. OF MASS.

Seal

By Joseph A. Schiavone

Title President

COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, SS. JANUARY 26, 1970.

Then appeared before me, Joseph A. Schiavone, and being sworn did acknowledge the foregoing to be the free act and deed of SCHIAVONE REALTY CORPORATION OF MASSACHUSETTS.

George W Stuart

Notary Public

My Commission expires 9/3/71

21629 310

VOTE OF

SCHIAVONE REALTY CORPORATION OF MASSACHUSETTS

VOTED: That the Corporation grant to the Massachusetts Port Authority, a certain parcel of land situated in that part of Boston called Charlestown, Suffolk County, Massachusetts containing about nine hundred fifty-seven thousand and seven hundred thirty-four (957,734) square feet, being shown on plan marked "Land in Boston, Mass., Boston & Maine Railroad to Schiavone Realty Corp. of Mass., J. F. Kerwin, Asst. Chief Engr., scale 1 in. eq. 100 ft. May 1960", recorded Suffolk Deeds Book 7531, Page 88, being the same premises granted to Schiavone Realty Corp. of Mass. by Boston and Maine Railroad dated December 30, 1960, and recorded Suffolk Deeds Book 7531, Page 88.

And that Joseph A. Schiavone on behalf of the Corporation and the Board of Directors execute any and all papers, instruments and deeds in connection therewith.

CERTIFICATE

The undersigned hereby certifies that he is the Secretary of Schiavone Realty Corporation of Massachusetts, a corporation organized and existing under the laws of the State of Connecticut that the foregoing is a true and correct copy of a vote passed at a meeting of the Board of Directors of said Corporation held on the 21st day of January 1970, at which meeting a quorum was at all times present and acting; that the passage of said vote was in all respects legal; and that said vote is in full force and effect.

Dated this 22nd day of January 1970.

William Schmiedel

William Schmiedel, Secretary

Grantee Address:
470 Atlantic Avenue
Boston, Mass. 02210

DEED 5340 319

NORCO PRODUCTS, INCORPORATED, a Connecticut corporation, for consideration paid grants to Massachusetts Port Authority a body politic and Corporate, organized and existing pursuant to provisions of Chapter 465 of the Acts of the General Court for the year 1956, and amendments thereto, a certain parcel of land situated in that part of Boston called Charlestown in the County of Suffolk and Commonwealth of Massachusetts, with buildings and other structures thereon bounded and described as follows:

Southeasterly	by other property of the Authority, seven hundred nineteen and 23/100 (719.23) feet;
Northeasterly	by land of Catalano Bros. Inc., and land of United States Gypsum Company, two hundred eighteen and 90/100 (218.90) feet;
Northwesterly	by other land of Sixty Terminal Street, Inc., not included in this Order, shown as Parcel "A" on a Plan dated March, 1961, recorded in Suffolk Deeds, Book 7616, Page 43, three hundred eighty-six and 64/100 (386.64) feet by land of Boston & Maine Corporation, three hundred seven and 04/100 (307.04) feet;
Northerly	by land of Boston & Maine Corporation, thirteen and 84/100 (13.84) feet;
Westerly	by land of Boston & Maine Corporation eighty-one and 71/100 (81.71) feet; and
Southerly	by the northerly line of the South Channel of Mystic River, one hundred sixty-five and 85/100 (165.85) feet.

Including so much of the premises described above as is included within the limits of Terminal Street Extension, as shown on a Plan referred to in instrument recorded in Suffolk Deeds Book 7114, Page 246, and as

described in said instrument, and also including in the premises described above the Right of Way shown on the Plan dated March, 1961, and bounded

Southerly and Southwesterly	By Terminal Street Extension, twenty-four and 47/100 (24.47) feet and fifty-five and 65/100 (55.65) feet;
Easterly	One hundred seven and 80/100 (107.80) feet;
Southeasterly	Two hundred eighty-two and 82/100 (282.82) feet and about sixty-four and 90/100 (64.90) feet;
Northeasterly	by the northeasterly line of the premises granted about one hundred forty (140) feet;
Northwesterly	by Parcel "A" on the Plan dated March, 1961 about forty-five (45) feet;
Southwesterly	by land now or formerly of Sixty Terminal Street, Inc., eighty-four and 10/100 (84.10) feet;
Easterly	by a curved line with a radius of ten (10) feet and a length of fifteen and 71/100 (15.71) feet; and
Northwesterly	again, about three hundred seventy-five (375) feet

excepting so much of the premises above described, as were granted to Sixty Terminal Street, Inc., as Parcel One and Parcel Two by deed recorded Suffolk Registry Book 7666, page 366.

The premises granted are subject to the following rights and easements which are not to be affected by this grant, except to the extent that they may merge:

1. Rights of the public in so much of the premises as lie below the original high water mark, as affected by Acts of the Legislature and recorded licenses, so far as now in force and applicable;

2. Rights granted to The Commonwealth of Massachusetts by Boston and Maine Railroad by deed dated November 23, 1948, recorded in

Suffolk Deeds, Book 6478, Page 442.

3. Easements granted to Mystic River Bridge Authority by Boston and Maine Railroad by deed dated August 8, 1949, recorded in Suffolk Deeds Book 6544, Page 497, as affected by a Release dated May 2, 1952, recorded in Suffolk Deeds, Book 6775, Page 552;

4. Rights taken by the Public Improvement Commission of the City of Boston, by an Order dated September 9, 1955, recorded in Suffolk Deeds, Book 7089, Page 495.

5. Rights grated to Schiavone Realty Corp. of Massachusetts by Boston and Maine Railroad by deed dated December 30, 1960, recorded in Suffolk Deeds Book 7531, Page 88.

6. Rights, Restrictions and Obligations created and reserved by the Boston and Maine Railroad by paragraph 4(d) of its deed to NORCO PRODUCTS, INCORPORATED, dated December 28, 1961, and recorded in Suffolk Deeds, Book 7616, Page 42.

The premises herein granted being a portion of the premises granted by deed of Boston and Maine Railroad dated December 28, 1961, and recorded Suffolk Deeds, Book 7616, Page 42.

This deed is given in the course of and in consideration of settlement of the Grantor's claim for Damages pursuant to the provisions of G. L. Chapter 79, and the Grantor's Petition for Assessment of Damages now pending in the Superior Court Suffolk Docket Number 644857. Consideration of the interest and property conveyed being less than One Hundred Dollars ($100) no State Excise Tax Stamps are attached hereto.

IN WITNESS WHEREOF, the said NORCO PRODUCTS INCORPORATED, has caused its corporate seal to be hereto affixed and these presents

Deed 21629 314 GWS 12/5/69

3340 322

to be signed in its name and behalf by its proper officer thereunto duly authorized, this 26th day of ~~December~~ January in the year nineteen hundred and ~~sixty-nine.~~ seventy

NORCO PRODUCTS, INCORPORATED

SEAL

By Joseph A. Schiavone

Title President

Comm. of Mass.

Suffolk ss. January 26, 1970

Then appeared Joseph A. Schiavone and being sworn did acknowledge the foregoing to be the free act and deed of NORCO PRODUCTS INCORPORATED.

George W. Shuck

Notary Public

My Commission expires 9/3/71

75531 88

BOSTON AND MAINE RAILROAD, a Massachusetts corporation, for consideration paid, grants to SCHRAVOSS REALTY CORP. OF MASS., a Connecticut corporation, a certain piece or parcel of land situated in that part of Boston, called Charlestown, in the County of Suffolk and Commonwealth of Massachusetts, with the buildings, tracks, and other structures thereon (other than poles, wires, cross-arms, anchors, guys, transformers, and related equipment, which are reserved), bounded and described as follows: beginning at the most northerly corner thereof which is a point on the Render Line (Pierhead and Bulkhead Line) on the Southerly side of the North Channel of the Mystic River, which point is One Hundred Twenty-eight and Fifteen Hundredths (128.15) feet North 28° 29' 51" East from the northeasterly end of the most northwesterly side line of a tract of land conveyed to Wiggin Terminals, Inc. by said Boston and Maine Railroad by deed dated January 7, 1957, recorded with Suffolk Deeds Book 7210, Page 324 thence running South 82° 27' 17" West by said Render Line, One Thousand Two Hundred Thirty-seven and Seventy-seven Hundredths (1237.77) feet to a point at remaining land of the Boston and Maine Railroad; thence turning and running by said last mentioned land on ten (10) courses as follows: South 7° 32' 43" West, Six Hundred Sixty-three and Twenty-four Hundredths (663.24) feet; North 82° 27' 17" West, One Thousand Sixty-one and Eighteen Hundredths (1061.18) feet; South 77° 56' 53" West, One Hundred Twenty-six and Ninety-three Hundredths (126.93) feet; South 61° 55' 03" West, Three Hundred Five and Eighteen Hundredths (305.18) feet; South 53° 51' 03" West, One Hundred Fourteen and Twenty-two Hundredths (114.22) feet; South 51° 14' 13" West, One Hundred Fifty-seven and Three Hundredths (157.03) feet; South 63° 56' West, Fifty-four and Eighty-five Hundredths (54.85) feet; North 28° 03' 10" West, Ten and sixty-

seven Hundredths (10.67) feet; North 56° 29' 40" East, Fifty-one and Eighty-eight Hundredths (51.88) feet and North 28° 25' 03" East, Forty-five and Five Hundredths (45.05) feet to a point at land of Wiggin Terminals, Inc.; thence turning and running by said last mentioned land of seven (7) courses as follows: North 28° 29' 51" East, Sixty-seven and no Hundredths (67.00) feet; South 61° 30' 29" East, Twelve and no Hundredths (12.00) feet; North 28° 29' 51" East, Nine Hundred Four and no Hundredths (904.00) feet; North 61° 30' 29" West, Twelve and no Hundredths (12.00) feet; South 28° 29' 51" West, Nine and Thirty-nine Hundredths (9.39) feet; North 61° 30' 29" West, Twelve and no Hundredths (12.00) feet and North 28° 29' 51" West, One Hundred Twenty-eight and Fifteen Hundredths (128.15) feet to the point of beginning, be all of said measurements more or less, said parcel containing about Nine Hundred Fifty-seven Thousand, Seven Hundred and Thirty-four (957,734) square feet and being shown upon plan marked, "Land in Boston, Mass. Boston and Maine Railroad to Schiavone Realty Corp. of Mass. J. F. Kerwin Ass't Chief Engr'r. Scale 1 in =100 ft. May, 1969" to be recorded herewith, to which reference is hereby made for a further description of the premises hereby conveyed, said parcel being hereinafter called Parcel A.

Together with an easement ten (10) feet wide from a point on the granted premises within three hundred (300) feet of the Southwesterly corner thereof to Terminal Street, to be determined by the grantor, and a temporary easement five (5) feet wide on either side thereof during construction, for the installation of underground wires, or, if practicable without interference with use of tracks, of poles and overhead wires.

Together with a right of way, as appurtenant to said parcel over the following tract of land, bounded and described

21629 317

R1-25-17

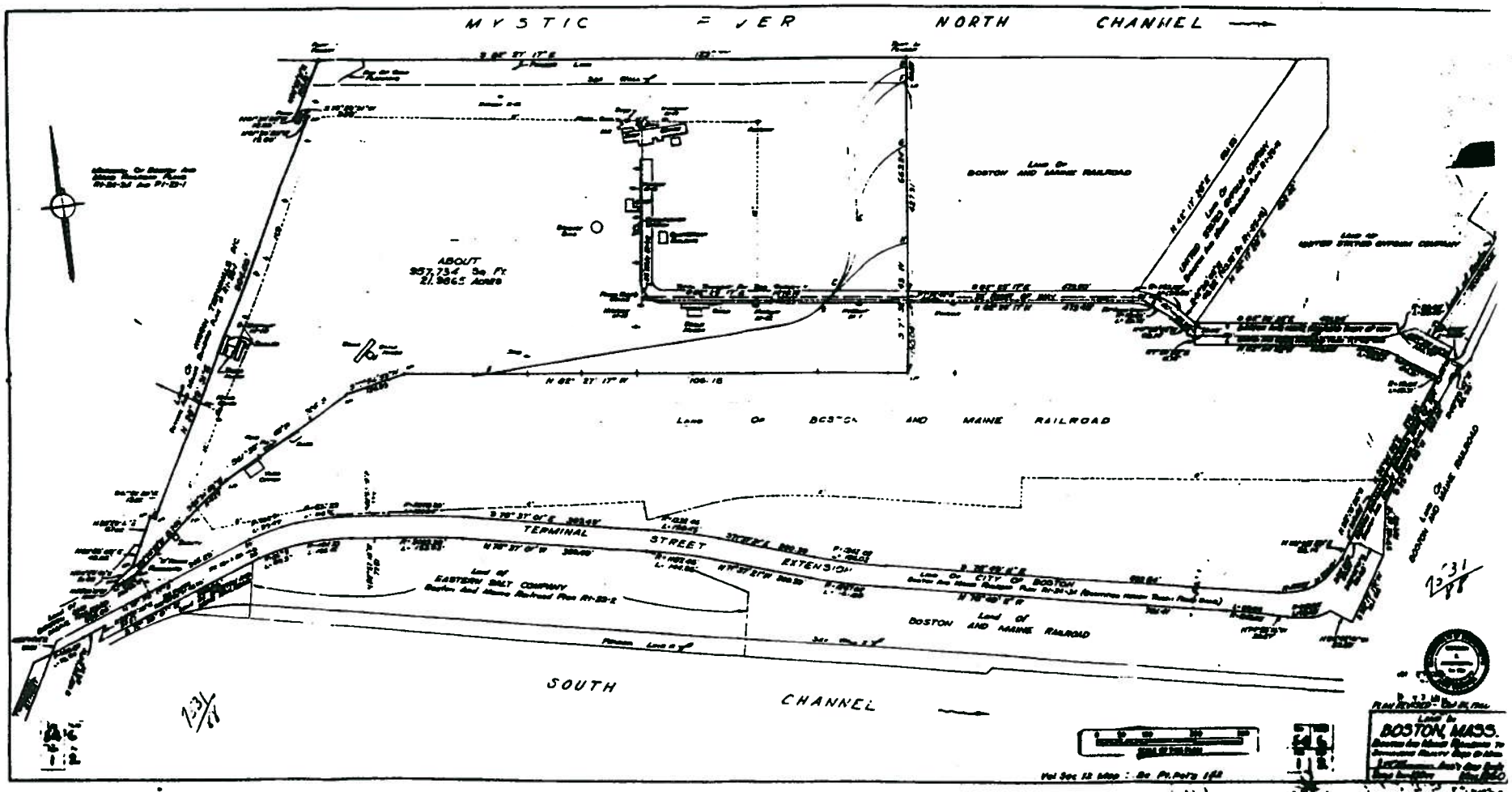


EXHIBIT A-1

Metes and Bounds Description of
Portion of the Property Subject to the AUL

EXHIBIT 'A-1'

A certain parcel of land on a plan to be recorded herewith, entitled, "MASSACHUSETTS PORT AUTHORITY, BOSTON MASSACHUSETTS, ACTIVITY AND USE LIMITATION, PLAN OF LAND, MORAN TERMINAL, TERMINAL ST, BOSTON (CHARLESTOWN DISTRICT) MA (SUFFOLK COUNTY)", scale 1"=100', dated 7/18/97, and further described as:

beginning at a point at the northwesterly corner of the parcel, being the northeasterly corner of land of Wiggin Terminals, Inc., at the fender line of the Mystic River, further described by the coordinates, N2965573.26, E775510.17 on the North American Datum Plane of 1983, Massachusetts Mainland Zone,

thence S82-43-03E, a distance of 700.00' by said fender line to a point,

thence S7-16-57W, a distance of 180.00' to a point,

thence N82-43-03W, a distance of 140.00' to a point,

thence S7-16-57W, a distance of 207.30' to a point,

thence N82-43-03W, a distance of 200.00' to a point,

thence S7-16-57W, a distance of 289.11' to a point,

thence S5-51-11E, a distance of 115.39' to a point,

thence S86-37-57W, a distance of 472.49' to a point,

thence N28-20-43W, a distance of 59.72' to a point,

thence S61-39-17W, a distance of 96.12' to a point,

thence S53-15-17W, a distance of 114.22' to a point,

thence S50-58-27W, a distance of 157.03' to a point,

thence S63-39-56W, a distance of 54.86' to a point said last 12 courses by other land of Massport,

thence N28-58-23W, a distance of 10.67' to a point,

thence N56-15-00E, a distance of 51.98' to a point,

thence N28-09-17E, a distance of 45.05' to a point,

EXHIBIT 'A-1' (continued)

thence N28-13-45E, a distance of 67.00' to a point,

thence S61-46-09E, a distance of 12.00' to a point,

thence N28-13-45E, a distance of 904.00' to a point,

thence N61-46-09W, a distance of 12.00' to a point,

thence S28-13-47W, a distance of 9.39' to a point,

thence N61-46-09W, a distance of 12.00' to a point,

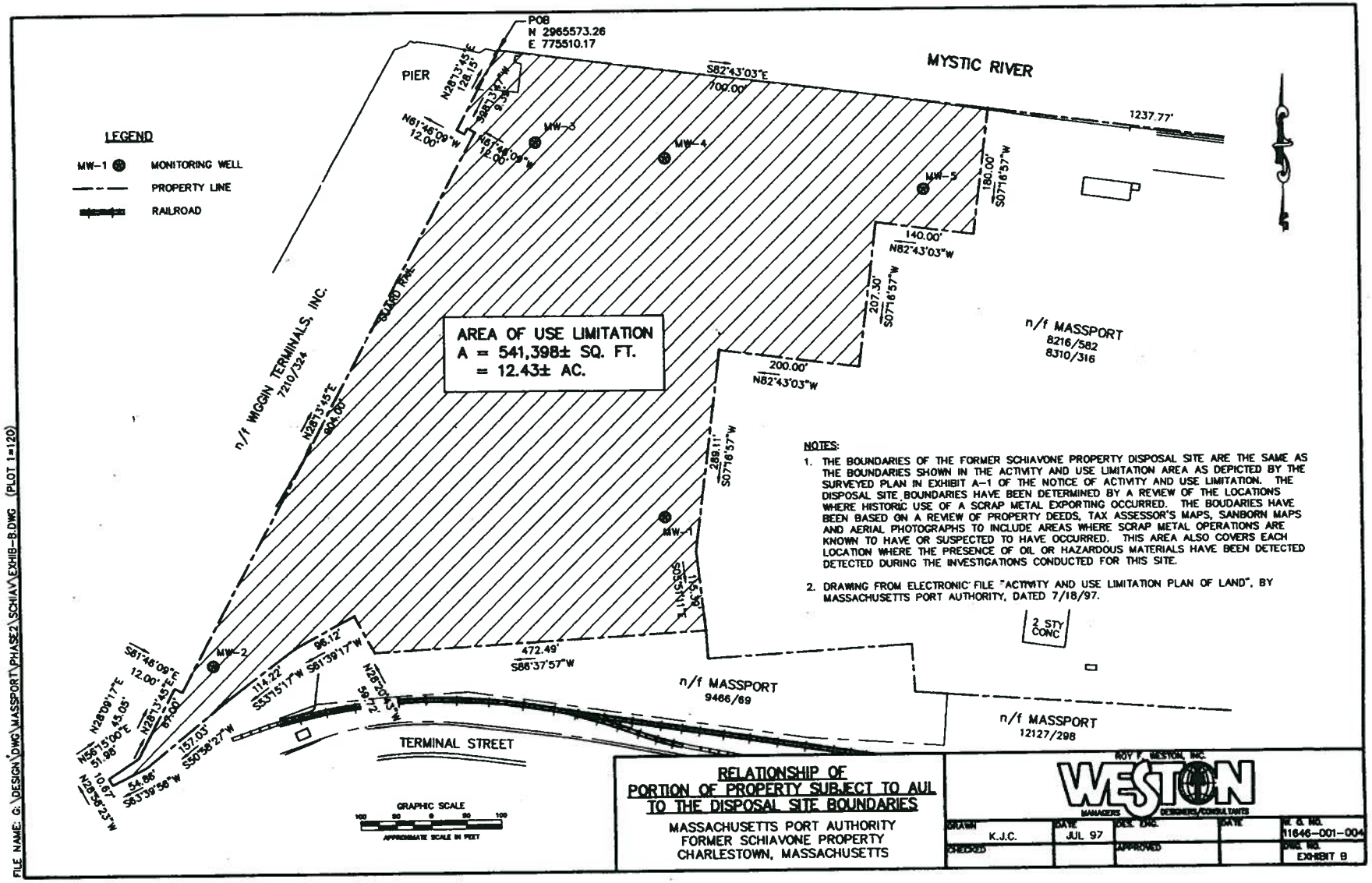
thence N28-13-45E, a distance of 128.15' to the point at the beginning said last nine courses by land of Wiggin Terminals, Inc.,

containing approximately 541,398 square feet, or 12.34 acres.

EXHIBIT B

Relationship of Portion of Property Subject to the AUL
to the Disposal Site Boundaries

21629 222



NOTES:

1. THE BOUNDARIES OF THE FORMER SCHIAVONE PROPERTY DISPOSAL SITE ARE THE SAME AS THE BOUNDARIES SHOWN IN THE ACTIVITY AND USE LIMITATION AREA AS DEPICTED BY THE SURVEYED PLAN IN EXHIBIT A-1 OF THE NOTICE OF ACTIVITY AND USE LIMITATION. THE DISPOSAL SITE BOUNDARIES HAVE BEEN DETERMINED BY A REVIEW OF THE LOCATIONS WHERE HISTORIC USE OF A SCRAP METAL EXPORTING OCCURRED. THE BOUDARIES HAVE BEEN BASED ON A REVIEW OF PROPERTY DEEDS, TAX ASSESSOR'S MAPS, SANBORN MAPS AND AERIAL PHOTOGRAPHS TO INCLUDE AREAS WHERE SCRAP METAL OPERATIONS ARE KNOWN TO HAVE OR SUSPECTED TO HAVE OCCURRED. THIS AREA ALSO COVERS EACH LOCATION WHERE THE PRESENCE OF OIL OR HAZARDOUS MATERIALS HAVE BEEN DETECTED DETECTED DURING THE INVESTIGATIONS CONDUCTED FOR THIS SITE.

2. DRAWING FROM ELECTRONIC FILE "ACTIVITY AND USE LIMITATION PLAN OF LAND", BY MASSACHUSETTS PORT AUTHORITY, DATED 7/18/97.

RELATIONSHIP OF PORTION OF PROPERTY SUBJECT TO AUL TO THE DISPOSAL SITE BOUNDARIES

MASSACHUSETTS PORT AUTHORITY
FORMER SCHIAVONE PROPERTY
CHARLESTOWN, MASSACHUSETTS

ROY F. WESTON, INC.
WESTON
MANAGERS DESIGNERS/CONSULTANTS

DRAWN	DATE	DES. ENG.	DATE	W. O. NO.
K.J.C.	JUL 97			11646-001-004
CHECKED		APPROVED		DWG. NO. EXHIBIT B

FILE NAME: G:\DESIGN\DWG\MASSPORT\PHASE2\SCHIAV\EXHIB-B.DWG (PLOT 1=120)

EXHIBIT C

AUL Opinion Transmittal Form
LSP Opinion for AUL

21628-824

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-114

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Pursuant to 310 CMR 40.1070 - 40.1084 (Subpart J)

Release Tracking Number: 3 - 0694

COMPLETE THIS FORM AND ATTACH AS AN EXHIBIT TO THE AUL DOCUMENT TO BE RECORDED AND/OR REGISTERED WITH THE REGISTRY OF DEEDS AND/OR LAND REGISTRATION OFFICE.

A. LOCATION OF DISPOSAL SITE AND PROPERTY SUBJECT TO AUL:

Disposal Site Name: Former Schiavone Property

Street: 100 Terminal Street Location Aid: Moran Terminal

City/Town: Boston ZIP Code:

Address of property subject to AUL, if different than above. Street:

City/Town: ZIP Code:

B. THIS FORM IS BEING USED TO: (check one)

- [x] Provide the LSP Opinion for a **Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1074 (complete all sections of this form).
- [ ] Provide the LSP Opinion for an **Amended Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1081(4) (complete all sections of this form).
- [ ] Provide the LSP Opinion for a **Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(3) (complete all sections of this form).
- [ ] Provide the LSP Opinion for a **Grant of Environmental Restriction**, pursuant to 310 CMR 40.1071, (complete all sections of this form).
- [ ] Provide the LSP Opinion for an **Amendment of Environmental Restriction**, pursuant to 310 CMR 40.1081(3) (complete all sections of this form).
- [ ] Provide the LSP Opinion for a **Release of Environmental Restriction**, pursuant to 310 CMR 40.1083(2) (complete all sections of this form).

C. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this submittal, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> *if Section B indicates that a **Notice of Activity and Use Limitation** is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1074(1)(b);

> *if Section B indicates that an **Amended Notice of Activity and Use Limitation** is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1080(1) and 40.1081(1);

> *if Section B indicates that a **Termination of a Notice of Activity and Use Limitation** is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1083(3)(a);

> *if Section B indicates that a **Grant of Environmental Restriction** is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1071(1)(b);

> *if Section B indicates that an **Amendment to a Grant of Environmental Restriction** is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1080(1) and 40.1081(1);

> *if Section B indicates that a **Release of Grant of Environmental Restriction** is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and
(ii) complies with 310 CMR 40.1083(3)(a).

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

- [ ] Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

SECTION C IS CONTINUED ON THE NEXT PAGE.

21629 325 BWSC-114

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Pursuant to 310 CMR 40.1070 - 40.1084 (Subpart J)

Release Tracking Number: 3 - 0694

C. LSP OPINION: (continued)

LSP Name: Anthony F. Andronico LSP #: 6105 Stamp:

Telephone: 617-204-2702 Ext.:

FAX: 617-204-2701

LSP Signature: Anthony F. Andronico

Date: 7/30/97

COMMONWEALTH OF MASSACHUSETTS
ANTHONY F. ANDRONICO
No. 6105
REGISTERED
LICENSED SITE PROFESSIONAL

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY FIND THE DOCUMENT TO BE INCOMPLETE.

ACTIVITY AND USE LIMITATION OPINION

1.0 Introduction

This Licensed Site Professional (LSP) Opinion for the Notice of Activity and Use Limitation (AUL) was prepared by Roy F. Weston, Inc. (WESTON®) of Boston, Massachusetts on behalf of the Massachusetts Port Authority (Massport) for a release at the Former Schiavone Property in Charlestown, Massachusetts (the Site). This LSP Opinion was prepared in accordance with 310 CMR 40.1074 and (1) provides the reason why implementation of an AUL is appropriate to maintain a level of No Significant Rick in the Site, (2) provides a description of activities and uses prohibited in the AUL area, (3) identifies permitted activities and uses in the AUL area, and (4) identifies conditions or obligations for the AUL area in order to maintain a level of No Significant Risk.

2.0 Site Background

The Former Schiavone Property site was a coal terminal during the 1800 and early 1900's and was used for scrap metal exporting between 1969 and 1985. In 1986, environmental assessment activities performed at the site revealed the presence of polychlorinated biphenyl (PCB) compounds at concentrations up to 186 ppm in the soils. Oil and grease at concentrations ranging from 2,800 to 47,000 parts per million (ppm) and relatively low concentrations of volatile organic compounds (VOCs) were also detected in some of the soil samples analyzed. In 1987, excavation and off-site removal of 10 cubic yards of polychlorinated biphenyls (PCBs) contaminated soil was performed; however, post-excavation confirmatory soil sampling revealed PCB concentrations up to 175 ppm. In preparation for site clearing and paving activities, a total of eight debris piles, totaling approximately 200,000 cubic feet, was sampled and characterized as summarized in Cambridge Analytical Associates, Inc. September 1987 report. The debris sampling indicated the presence of PCB's, phthalate compounds, lead, zinc, and polycyclic aromatic hydrocarbons (PAHs) in the debris. Following the 1987 sampling activities, all debris was removed from the site and the site property was covered with 24-inches of asphalt paving and concrete to support the expansion of the adjacent Moran Terminal onto the property.

A Phase I Report and Tier Classification for the site was prepared by Whitman & Howard, Inc. and submitted to the Massachusetts Department of Environmental Protection (MA DEP) on August 2, 1995. The site is classified as Tier II, and the Phase I Report outcome was that further response actions were necessary under the Massachusetts Contingency Plan (MCP). Based on the information provided in the Phase I, the presence of PCBs in groundwater above the GW-3 Standards at that time precluded the issuance of a Response Action Outcome (RAO) statement. In December 1996, WESTON initiated Phase II Comprehensive Site Assessment (CSA) activities. The objectives of the Phase II CSA were to confirm the nature and extent of contamination at the site, and to determine whether site contaminants pose a significant risk of harm to human health, safety, public welfare or the environment by conducting an MCP Method 3 Risk Assessment.

The site history and previous sampling and analysis data indicated that the contaminants of concern were PCBs, PAHs, petroleum hydrocarbons (extractable and volatile), lead, zinc, and phthalates. Soil and groundwater samples were collected to be analyzed for each of the identified contaminants of concern. The analytical results showed none of the contaminants of concern detected in the groundwater, with the exception of zinc at a maximum concentration of 0.046 mg/l.

The soil sample analysis results revealed the presence of PCB's in one soil sample at 1.04 mg/kg; lead in concentrations ranging from 4.12 to 751 mg/kg; zinc in concentrations ranging from 12.2 to 665 mg/kg; aliphatic and aromatic hydrocarbons ranging from none detected to a maximum of 12,000 ppm of C_{19}-C_{36} aliphatics and 5,480 ppm of C_{10}-C_{22} aromatics; and several polycyclic aromatic hydrocarbons ranging from none detected to maximum concentrations of 139 mg/kg of chrysene, 79.5 mg/kg of pyrene, 76.2 mg/kg of benzo(b)flourathene, 59.4 mg/kg of fluoranthene, 30.8 mg/kg of benzo(a)anthracene and 22.7 mg/kg of benzo(a)pyrene, and several other PAH compounds within those concentration ranges. No phthalate compounds were detected in the soils.

Based on the results of the Phase II CSA, as well as prior assessments, it was concluded that the contaminants of concern at this site are PCB's, PAH's, Extractable and Volatile Petroleum Hydrocarbons, lead and zinc. VOCs were also detected sporadically in site soils. The source of contamination is concluded to be historical operations as a scrap metal yard, although prior uses as a coal storage and railroad yard may also have contributed to the site conditions.

The contaminants detected do not follow any clear distribution pattern and the soil sample analytical results indicate that the presence of these contaminants extends over the entire area where the scrap metal operations were conducted.

3.0 Summary of the Risk Characterization

The results of the Risk Characterization are the basis for a decision regarding the selection of an appropriate RAO for the Site pursuant to 310 CMR 40.1000. A summary of the Risk Characterization completed by WESTON is presented below and included in the Phase II CSA.

According to MassGIS map (Figure 3 of the Phase II CSA report), the site does not lie within a Zone II, Interim Wellhead Protection Area, Potentially Productive Aquifer, or a Zone A of a Class A surface water body. The Site is served by the MWRA drinking water supplies and there are no known private wells within 500 feet of the Site. Therefore, the criteria listed for GW-1 classification in 310 CMR 40.0932 (4) are not met.

As described in the Phase II CSA report, average depth to groundwater is less than 15 feet below ground surface at the Site. However, there are no buildings on the Site. Therefore in accordance with 310 CMR 40.0932, groundwater beneath the Site is classified as GW-3.

In accordance with 310 CMR 40.0933 (7)(b), soil at the Site can be classified as S-3. This classification is based on the following parameters:

- Soil at the Site is potentially accessible because contaminants of concern were detected in samples less than 15 feet below grade;

- Children's frequency of Site use is considered to be low because they could potentially be present, but only as infrequent visitors; and,

- Children's and adult's intensity of use is considered to be low because the site is covered with concrete and pavement and there are no activities anticipated to disturb soil.

A condition of No Significant Risk of harm to public health and safety exists for current and future Site conditions because the Site does not exhibit "nuisance conditions" (i.e. , emissions, accessible contaminated soils, sediments, groundwater to surface water) or cause use limitations or restrictions on surrounding properties. The Site also does not adversely impact the community with regard to public welfare.

A condition of No Significant Risk to the environment also exists based on the following criteria:

- There is no evidence of current or potential future impacts of Site contaminants on the nearby Mystic River;

- Based on MassGIS map, there are no Areas of Critical Environmental Concern (ACEC) within a 0.5 mile radius of the Site.

A condition of No Significant Risk to human health exists based on the exposure point concentrations, and on the limited exposure potential of the contaminants under current site conditions. However, potential future risks to human health would result from direct contact with the soil, unless potential exposure to the soil is controlled or eliminated.

4.0 Why an AUL is Required to Maintain a Level of No Significant Risk

As described in the Phase II CSA report, a condition of No Significant Risk exists at the site currently. Further remediation would not provide significant benefits relative to risk reduction. Given that the Site is situated in a highly developed commercial/industrial area in Charlestown, benefits associated with "environmental restoration" which would result from further remediation are negligible. The cost to implement the technically feasible remedial alternatives (soil excavation, treatment and removal) would be substantial. These costs would clearly be disproportionate to the marginal incremental benefit which further remediation might provide.

In lieu of additional remediation, an AUL has been selected for implementation at the Site because it will not impact or restrict the present or expected long term use of the Site. A Notice of an AUL is required for this Site to prohibit future Site uses where children or adults would come in contact with the soil at a high intensity. High intensity direct contact with the soil would pose a significant risk to human health using the exposure point concentrations shown in Table 4-1 of the Phase II CSA report.

5.0 Restricted Activities and Uses

Activities and uses which are inconsistent with the objectives of this Notice if Activity and Use Limitation, and which, if implemented at the Portion of the Property may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard, are as follows:

1) Use of the area defined as the Portion of the Property as a residence, children's school, children's day care center, children's playground, or other recreational use, unless measures are taken to prevent children twelve (12) years of age or younger from being inadvertently exposed to surface or subsurface soils.

2) Agricultural activity or use of the area defined as the Portion of the Property where the soil is used for growing fruits or vegetables for human consumption.

3) Activity or use of the area defined as the Portion of the Property that would likely cause physical or chemical deterioration, breakage, or structural damage to the pavement.

4) Removal of pavement in the Portion of the Property which would likely result in direct contact, disturbance or relocation of, the contaminated soil beneath the pavement, unless such activity strictly involves limited, short-term utility or construction work conducted in accordance with the performance standards from Utility related Abatement Measures (URAM) set forth in 310 CMR 40.0460. In addition, the URAM must include Soil Management procedures pursuant to 310 CMR 40.0030, and/or all applicable workers Health and Safety practices must protect any utility worker and/or construction worker with regard to site specific chemicals of concern and exposure pathways. Pavement shall be immediately repaired or replaced.

5) Construction of buildings, building additions, paving, or other work, specifically within the Portion of the Property which may cause disturbance of the soils beneath the pavement, unless such activity is conducted in accordance with performance standards for a Release Abatement Measure (RAM) as set forth in 301 CMR 40.0440. In addition, the RAM must include Soil Management procedures pursuant to 310 CMR 40.0030, and/or all applicable workers Health and Safety practices pursuant to 310 CMR 40.0018 The Health and Safety practices must protect any construction worker with regard to site specific chemicals of concern and exposure pathways. Pavement shall be immediately repaired or replaced.

6.0 Accepted Activities and Uses

The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare or the environment exist for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Portion of the Property:

1) All industrial and commercial uses of the area defined as the Portion of the Property that do not contact with soil are permitted, including those that are currently conducted.

2) Subsurface construction projects can be undertaken at the Portion of the Property provided the project is under the supervision of an LSP, and is in accordance with the requirements for conducting a RAM or URAM per 310 CMR 40.0440 or 310 CMR 40.0460, respectively, and provided that construction personnel are OSHA qualified in accordance with 40 CFR 1910.120 and there is a site specific health and safety plan prepared for hazardous materials operations.

3) Other activities or uses of the Portion of the Property that do not involve or include a listed inconsistent use or activity are permitted.

4) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare or the environment that the activities and uses set forth in this paragraph.

7.0 Obligations for the AUL Area

If applicable, obligations and/or conditions to be undertaken and/or maintained at the Portion of the Property to maintain a condition of No Significant Risk, as set forth in the AUL Opinion, shall include the following:

1) Any activity or use of the Portion of the Property that could result in contact with soils requires preparation and implementation of a Health and Safety Plan under the guidance of an LSP. At a minimum, the Health and Safety Plan must inform underground utility workers and other workers who will come in contact with subsurface soils in the AUL area of (1) the nature and hazards of the contaminants identified in the soils, (2) potential exposure routes, (3) measures to prevent exposure, (4) protective clothing requirements, and any other health and safety measures appropriate for the activity or use.

2) Any excavation or disturbance of the pavement or subsurface soils at the Portion of the Property requires preparation and implementation of an Excavation Plan under the guidance of an LSP. At a minimum, the Excavation Plan must (1) detail procedures for preventing surface and subsurface soils from being mixed with other soils or being replaced in the excavation at a depth that would allow exposure of the soils at ground surface, (2) describe the soil stockpile storage methods that will be used to prevent accidental exposure to the excavated soils, (3) contain procedures to limit access to the excavated subsurface soils and the excavation area by Site workers not covered by the Health and Safety Plan, children, Site Abutters, or accidental trespassers, (4) contain procedures for characterizing and disposing excavated soils, and (5) provide for the repair or replacement of the paving as soon as practicable.

3) Any soils removed from the area defined as the Portion of the Property must be characterized and disposed of in accordance with federal, state and local regulations.

8.0 Summary and Conclusions

This LSP Opinion has been prepared for implementation of a Notice of Activity and Use Limitation for a release at the Former Schiavone Property in Charlestown, Massachusetts. A Method 3 Risk Characterization indicates that restrictions on activities and uses of the disposal site are required to achieve and maintain a condition of No Significant Risk. In general, activities and uses of the disposal site that result in contact with soil are to be restricted.

Based upon the results of the Method 3 Risk Characterization and the implementation of an AUL at the Site, it is the opinion of WESTON that a condition of No Significant Risk will exist at the site and that a Permanent Solution has been achieved.

Appendix D

Boring Logs

BORING INFORMATION

NORTHING: 2964548
GROUND SURFACE EL. (ft): 9.6
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 774966.4
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING A12

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange brown, SANDY FILL.
		S2	1 to 3	24/7	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM): ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/14	PUSH			S3: WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, brown to gray, URBAN FILL.
		S4	5 to 7	24/20	PUSH			S4 (0-4"): Similar to S3.
								S4 (4-20") SILT (ML) ~90% silt, ~10% sand, gray, DREDGE FILL.
		S5	7 to 9	24/21	PUSH			S5: Similar to S4 (4-20").
0	10	S6	9 to 11	24/24	PUSH			S6: Similar to S4 (4-20").
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964723
GROUND SURFACE EL. (ft): 12.9
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 4.5
LOGGED BY: C. Malagrida

EASTING: 775098.4
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING B10

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange brown, SANDY FILL.
		S2	1 to 3	24/7	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash from 5-7", URBAN FILL.
10		S3	3 to 4.5	18/17	PUSH			S3: Similar to S2, but brick fragments from 13-15".
								Refusal at 4.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964623
EASTING: 775085.6
GROUND SURFACE EL. (ft): 9.2
DATE START/END: 2/16/2011 - 2/16/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING B11

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/10	PUSH			S1 (0-8"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 3	24/13	PUSH			S1 (8-10"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, URBAN FILL. S2: Similar to S1 (8-10").
		S3	3 to 5	24/0	PUSH			S3: No recovery.
		S4	5 to 7	24/0	PUSH			S4: No recovery.
		S5	7 to 9	24/20	PUSH			S5: SILT WITH SAND (ML) ~80% silt, ~20% fine sand, gray, DREDGE FILL.
0	10	S6	9 to 11	24/7	PUSH			S6: Similar to S5.
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 296400
GROUND SURFACE EL. (ft): 13.1
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 4.5
LOGGED BY: C. Malagrida

EASTING: 775223.4
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING C8

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/11	PUSH			S1: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash fragments throughout, URBAN FILL.
		S2	1 to 3	24/16	PUSH			S2: Similar to S1, but concrete and brick fragments throughout.
10		S3	3 to 4.5	18/11	PUSH			S3: Similar to S1, but wet from 12".
								Refusal at 4.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964809
EASTING: 775210.5
GROUND SURFACE EL. (ft): 12.8
DATE START/END: 2/16/2011 - 2/16/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 2.5
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING C9

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/5	PUSH			S1: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 2.5	18/11	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, brick fragments from 5-8", URBAN FILL.
10								Refusal at 2.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964710
GROUND SURFACE EL. (ft): 13
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 4.5
LOGGED BY: C. Malagrida

EASTING: 775197.7
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING C10

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 3	24/19	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash from 16-19", URBAN FILL.
10		S3	3 to 4.5	18/11	PUSH			S3: Similar to S2.
								Refusal at 4.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964802
GROUND SURFACE EL. (ft): 10.3
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775266
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING CD9

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/6	PUSH			S1 (0-3"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/7	PUSH			S1 (3-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/19	PUSH			S3: Similar to S2.
		S4	5 to 7	24/6	PUSH			S4: WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, black, URBAN FILL.
		S5	7 to 9	24/20	PUSH			S5 (0-9"): Similar to S4.
								S5 (9-20"): SILTY SAND (SM) ~65% fine sand, ~35% silt, gray, wet at 10", DREDGE FILL.
		S6	9 to 11	24/20	PUSH			S6: Similar to S5 (9-20").
0	10							Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965201
EASTING: 775378.5
GROUND SURFACE EL. (ft): 11
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 8.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING D5

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/12	PUSH			S2 (0-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (7-12"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, dark brown, wood fragments throughout, URBAN FILL.
		S3	3 to 5	24/9	PUSH			S3: Similar to S2 (7-12"), but wet from 5".
		S4	5 to 7	24/18	PUSH			S4 (0-9"): Similar to S2 (7-12").
								S4 (9-18"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S5	7 to 8	12/5	PUSH			Similar to S4 (9-18").
								Refusal at 8 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/17/11

BORING INFORMATION

NORTHING: 2965091
GROUND SURFACE EL. (ft): 11.1
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775367.9
DATE START/END: 2/14/2011 - 2/14/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING D6

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/12	PUSH			S1 (0-6"): WIDELY GRADED SAND WTH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (6-12"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10		S2	1 to 3	24/16	PUSH			S2 (0-4"): Similar to S1 (6-12"). S2 (4-16"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 0.5", ~5% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/20	PUSH			S3 (0-10"): Similar to S2 (4-16").
								S3 (10-20"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S4	5 to 7	24/18	PUSH			S4: Similar to S3 (10-20").
		S5	7 to 9	24/21	PUSH			S5: Similar to S3 (10-20").
		S6	9 to 11	24/24	PUSH			S6: Similar to S3 (10-20").
	10							
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965044
EASTING: 775355.8
GROUND SURFACE EL. (ft): 11.4
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 4.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING D6.5

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: t40-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/2	PUSH			S2: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S3	3 to 4	12/3	PUSH			S3: Similar to S2.
								Refusal at 4 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964994
GROUND SURFACE EL. (ft): 11.2
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775345.5
DATE START/END: 2/14/2011 - 2/14/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING D7

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/10	PUSH			S2 (0-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (6-10): Brick fragments.
		S3	3 to 5	24/20	PUSH			S3 (0-15"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal and brick fragments throughout, URBAN FILL.
								S3 (15-20"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S4	5 to 7	24/24	PUSH			S4: Similar to S3 (15-20").
		S5	7 to 9	24/20	PUSH			S5: Similar to S3 (15-20").
	10	S6	9 to 11	24/24	PUSH			S6: Similar to S3 (15-20").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964895
GROUND SURFACE EL. (ft): 10.8
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775353.7
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING D8

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/7	PUSH			S1 (0-5"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1 ", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/11	PUSH			S1 (5-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/19	PUSH			S3 (0-12"): Similar to S2.
		S4	5 to 7	24/20	PUSH			S3 (12-19"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL. S4: Similar to S3 (12-19"), but wet at 5".
		S5	7 to 9	24/23	PUSH			S5: Similar to S3 (12-19"), but wet.
	10	S6	9 to 11	24/21	PUSH			S6: Similar to S3 (12-19"), but wet.
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965378
GROUND SURFACE EL. (ft): 11.9
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775486.3
DATE START/END: 2/10/2011 - 2/10/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING E3

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/9	PUSH			S2 (0-4"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10								S2 (4-9"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash and coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/18	PUSH			S3: Similar to S2 (4-9").
		S4	5 to 7	24/6	PUSH			S4: Similar to S2 (4-9").
		S5	7 to 9	24/7	PUSH			S5: SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, wet, DREDGE FILL.
	10	S6	9 to 11	24/23	PUSH			S6: Similar to S5.
0								Bottom of boring 11 feet, finished as monitoring well.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

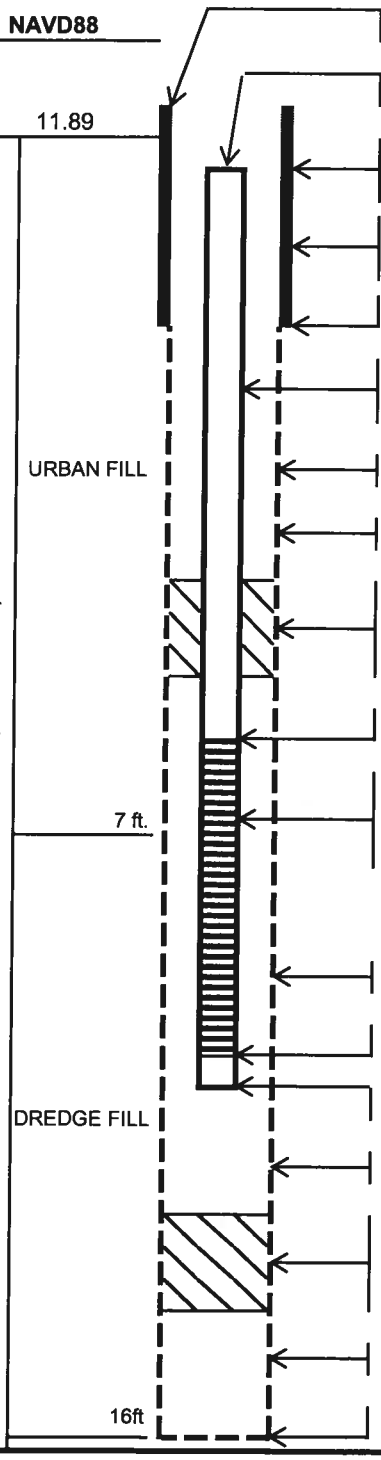
Groundwater Well Installation Log

E3(MW)

Project	Moran Terminal	**GEI Proj. No.**	091503
City / Town	Charlestown, MA	**Location**	West of WTTC building.
Client	Massport		
Contractor	Geologic		
Driller	J. Ferreira **GEI Rep.** C. Malagrida	**Install Date**	3/2/2011

Survey Datum: NAVD88

Ground Elevation: 11.89



General Soil Conditions (Not to Scale)

Length of Surface Casing above Ground	Flush mount
Dist. Top of Surf. Casing to Top of Riser Pipe	3.24"
Type and Thickness of Seal around Surface Casing	Concrete
ID of Surface Casing	4"
Type of Surface Casing	Steel roadbox
Depth Bottom of Surface Casing	6"
ID and OD of Riser Pipe	1.0"/1.15"
Type of Riser Pipe	Sch. 40 PVC
Type of Backfill around Riser Pipe	No. 0 sand
Diameter of Borehole	4"
Depth Top of Seal	2'
Type of Seal	Bentonite
Depth Bottom of Seal	4'
Depth Top of Screened Section	6'
Type of Screen	Sch. 40 PVC
Description of Screen Openings	0.010"
ID and OD of Screened Section	1.0"/1.15"
Type of Filter Material	No. 0 sand
Depth Bottom of Screened Section	16'
Depth Bottom of Silt Trap	16'
Depth Bottom of Filter Material	16'
Depth Top of Seal	NA
Type of Seal	NA
Depth Bottom of Seal	NA
Type of Backfill below Filter Material	NA
Bottom of Borehole	16'

Date	Time	Distance to ▼ below top of riser pipe
3/2/2011	10:00	6.06 ft

Notes:

1 in. = inches
2 ft = feet
3 NA = Not Applicable
4 NM = Not Measured

GEI Consultants

M:\Drafting\Office\Forms\Well Install Log Blank Form

BORING INFORMATION

NORTHING: 2965279
EASTING: 775473.3
GROUND SURFACE EL. (ft): 11.9
DATE START/END: 2/15/2011 - 2/15/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 4.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING E4

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/11	PUSH			S2 (0-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10								S2 (6-11"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 4	12/9	PUSH			S3: Similar to S2 (6-11").
								Refusal at 4 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965190
GROUND SURFACE EL. (ft): 11.1
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 1.0
LOGGED BY: C. Malagrida

EASTING: 775460.5
DATE START/END: 2/11/2011 - 2/11/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING E5

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1 (0-3"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (3-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. Refusal at 1 foot.
10								
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965081
EASTING: 775448.8
GROUND SURFACE EL. (ft): 11.4
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 3.5
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING E6

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1 (0-4"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/9	PUSH			S1 (4-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 3.5	6/2	PUSH			S3: Similar to S2.
								Refusal at 3.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964981
GROUND SURFACE EL. (ft): 11.6
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775434.7
DATE START/END: 2/14/2011 - 2/14/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING E7

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1 (0-4"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
								S1 (4-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10		S2	1 to 3	24/6	PUSH			S2: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 0.5", ~5% silt, black, coal ash throughout, URBAN FILL.
		S3	3 to 5	24/20	PUSH			S3: SImilar to S2.
		S4	5 to 7	24/21	PUSH			S4 (0-7"): Similar to S2.
								S4 (7-21"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S5	7 to 9	24/21	PUSH			S5: Similar to S4 (7-21").
		S6	9 to 11	24/24	PUSH			S6: Similar to S4 (7-21").
	10							
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964882
EASTING: 775421.7
GROUND SURFACE EL. (ft): 10.7
DATE START/END: 2/15/2011 - 2/15/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING E8

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/9	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, URBAN FILL.
		S3	3 to 5	24/20	PUSH			S3: Similar to S2, with coal ash throughout.
		S4	5 to 7	24/17	PUSH			S4 (0-8"): Similar to S3.
								S4 (8-17"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S5	7 to 9	24/20	PUSH			S5: Similar to S4 (8-17").
	10	S6	9 to 11	24/23	PUSH			S6: Similar to S4 (8-17").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

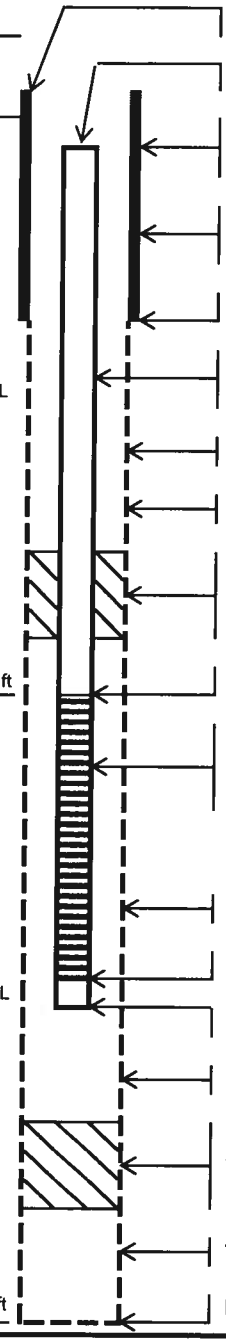
Groundwater Well Installation Log

E8(MW)

Project	Moran Terminal	**GEI Proj. No.**	091503
City / Town	Charlestown, MA	**Location**	North of salt shed.
Client	Massport		
Contractor	Geologic		
Driller	J. Ferreira **GEI Rep.** C. Malagrida	**Install Date**	3/2/2011

Survey Datum: NAVD88

Ground Elevation: 10.73



General Soil Conditions (Not to Scale)

Date	Time	Distance to ▼ below top of riser pipe
3/2/2011	10:00	3.51 ft

Length of Surface Casing above Ground	Flush mount
Dist. Top of Surf. Casing to Top of Riser Pipe	3.24"
Type and Thickness of Seal around Surface Casing	Concrete
ID of Surface Casing	4"
Type of Surface Casing	Steel roadbox
Depth Bottom of Surface Casing	6"
ID and OD of Riser Pipe	2.0"/2.25"
Type of Riser Pipe	Sch. 40 PVC
Type of Backfill around Riser Pipe	No. 0 sand
Diameter of Borehole	4"
Depth Top of Seal	2'
Type of Seal	Bentonite
Depth Bottom of Seal	4'
Depth Top of Screened Section	6'
Type of Screen	Sch. 40 PVC
Description of Screen Openings	0.010"
ID and OD of Screened Section	2.0"/2.25"
Type of Filter Material	No. 0 sand
Depth Bottom of Screened Section	16'
Depth Bottom of Silt Trap	16'
Depth Bottom of Filter Material	16'
Depth Top of Seal	NA
Type of Seal	NA
Depth Bottom of Seal	NA
Type of Backfill below Filter Material	NA
Bottom of Borehole	16'

Notes:

1 in. = inches
2 ft = feet
3 NA = Not Applicable
4 NM = Not Measured

GEI Consultants

M:\Drafting\Office\Forms\Well Install Log Blank Form

BORING INFORMATION

NORTHING: 2964783
EASTING: 775416.3
GROUND SURFACE EL. (ft): 10.8
DATE START/END: 2/15/2011 - 2/15/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING E9

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/11	PUSH			S1 (0-5"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/14	PUSH			S1 (5-11"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/20	PUSH			S3: Similar to S2.
		S4	5 to 7	24/21	PUSH			S4 (0-4"): Similar to S2. S4 (4-21"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S5	7 to 9	24/20	PUSH			S5: Similar to S4 (4-21").
	10	S6	9 to 11	24/22	PUSH			S6: Similar to S4 (4-21").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: NM
EASTING: NM
GROUND SURFACE EL. (ft):
DATE START/END: 2/16/2011 - 2/16/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 3.5
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING EF8

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/9	PUSH			S1: WIDLEY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/11	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~19% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 3.5	6/6	PUSH			S3: Similar to S2.
								Refusal at 3.5 feet.
	10							

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: NM
EASTING: NM
GROUND SURFACE EL. (ft):
DATE START/END: 2/15/2011 - 2/15/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 3.5
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING EF9

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/7	PUSH			S2: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S3	3 to 3.5	6/0	PUSH			S3: No recovery.
								Refusal at 4 feet.
	10							

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

BORING INFORMATION

NORTHING: 2965474
GROUND SURFACE EL. (ft): 11.7
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 4.0
LOGGED BY: C. Malagrida

EASTING: 775602
DATE START/END: 2/14/2011 - 2/14/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING F2

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/9	PUSH			S2 (0-5"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2 (5-9"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, wood fragments throughout, URBAN FILL.
		S3	3 to 4	12/0	PUSH			S3: No recovery.
	10							Refusal at 4 feet.
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

BORING INFORMATION

NORTHING: 2965167
GROUND SURFACE EL. (ft): 11.6
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775559.6
DATE START/END: 2/11/2011 - 2/11/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING F5

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/9	PUSH			S1 (0-3"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/11	PUSH			S1 (3-9"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 0.5", ~5% silt, black, brick fragments throughout, URBAN FILL.
		S3	3 to 5	24/16	PUSH			S3 (0-5"): Similar to S2. S3 (5-16"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, shell fragments throughout, DREDGE FILL.
		S4	5 to 7	24/20	PUSH			S4: Similar to S3 (5-16"), but wet at 5".
		S5	7 to 9	24/22	PUSH			S5: Similar to S3 (5-16"), but wet.
	10	S6	9 to 11	24/24	PUSH			S6: Similar to S3 (5-16"), but wet.
0								Bottom of boring 11 feet, finished as monitoring well.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

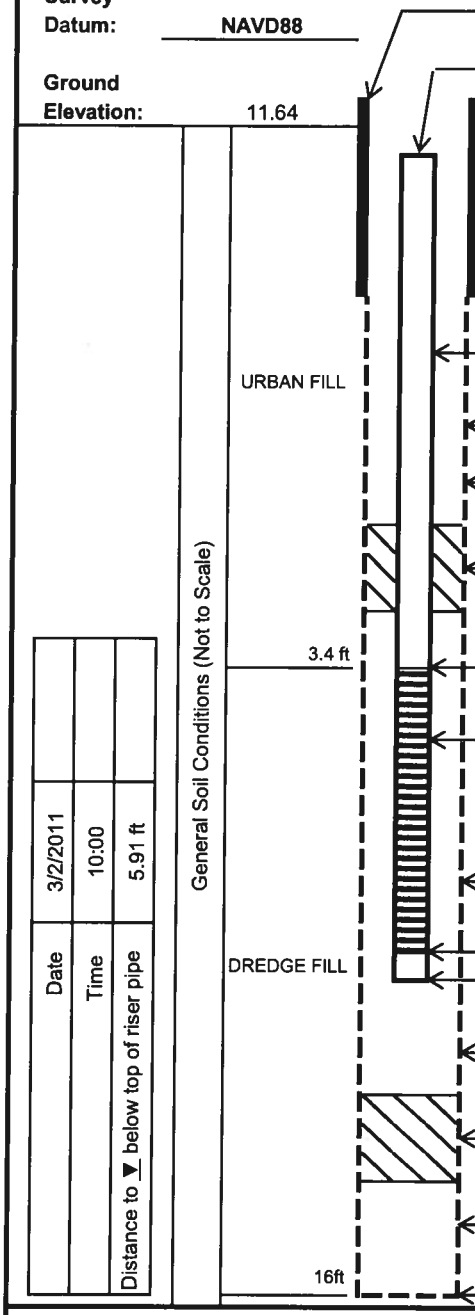
Groundwater Well Installation Log

F5(MW)

Project	Moran Terminal	**GEI Proj. No.**	091503
City / Town	Charlestown, MA	**Location**	South of WTTC building.
Client	Massport		
Contractor	Geologic		
Driller	J. Ferreira	**GEI Rep.** C. Malagrida	**Install Date** 3/2/2011

Survey Datum: NAVD88

Ground Elevation: 11.64



Length of Surface Casing above Ground	Flush mount
Dist. Top of Surf. Casing to Top of Riser Pipe	3.24"
Type and Thickness of Seal around Surface Casing	Concrete
ID of Surface Casing	4"
Type of Surface Casing	Steel roadbox
Depth Bottom of Surface Casing	6"
ID and OD of Riser Pipe	1.0"/1.15"
Type of Riser Pipe	Sch. 40 PVC
Type of Backfill around Riser Pipe	No. 0 sand
Diameter of Borehole	4"
Depth Top of Seal	2'
Type of Seal	Bentonite
Depth Bottom of Seal	4'
Depth Top of Screened Section	6'
Type of Screen	Sch. 40 PVC
Description of Screen Openings	0.010"
ID and OD of Screened Section	1.0"/1.15"
Type of Filter Material	No. 0 sand
Depth Bottom of Screened Section	16'
Depth Bottom of Silt Trap	16'
Depth Bottom of Filter Material	16'
Depth Top of Seal	NA
Type of Seal	NA
Depth Bottom of Seal	NA
Type of Backfill below Filter Material	NA
Bottom of Borehole	16'

Date	Time	Distance to ▼ below top of riser pipe
3/2/2011	10:00	5.91 ft

Notes:

1 in. = inches
2 ft = feet
3 NA = Not Applicable
4 NM = Not Measured

GEI Consultants

M:\Drafting\Office\Forms\Well Install Log Blank Form

BORING INFORMATION

NORTHING: 2965065
EASTING: 775547.2
GROUND SURFACE EL. (ft): 12
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING F6

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/12	PUSH			S1 (0-6"): WIDELY GRADED SAND WTH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (6-12"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 3	24/16	PUSH			S2 (0-4"): Similar to S1 (6-12"). S2 (4-16"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 0.5", ~5% silt, black, coal fragments throughout, URBAN FILL.
10		S3	3 to 5	24/20	PUSH			S3 (0-10"): Similar to S2 (4-16"). S3 (10-20"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S4	5 to 7	24/18	PUSH			S4: Similar to S3 (10-20").
		S5	7 to 9	24/21	PUSH			S5: Similar to S3 (10-20").
	10	S6	9 to 11	24/24	PUSH			S6: Similar to S3 (10-20").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964969
GROUND SURFACE EL. (ft): 12.1
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 4.5
LOGGED BY: C. Malagrida

EASTING: 7755333.9
DATE START/END: 2/14/2011 - 2/14/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING F7

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/11	PUSH			S1 (0-6"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/8	PUSH			S1 (6-11"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments from 6-8", URBAN FILL.
10		S3	3 to 4.5	18/15	PUSH			S3: Similar to S2.
								Refusal at 4.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING:	NM	EASTING:	NM
GROUND SURFACE EL. (ft):		DATE START/END:	2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS:	NAVD 88/NAD 83	DRILLING COMPANY:	Geologic, Inc.
TOTAL DEPTH (ft):	7.5	DRILLER NAME:	J. Ferreira
LOGGED BY:	C. Malagrida	RIG TYPE:	Geoprobe 54DT

BORING F7.5

DRILLING INFORMATION

HAMMER TYPE:	NA	CASING I.D./O.D.:	3 inch/ 3.25 inch	CORE BARREL TYPE:	Macrocore
AUGER I.D./O.D.:	NA / NA	DRILL ROD O.D.:	NA inch NW	CORE BARREL I.D./O.D.:	2.0 inch / 2.25 inch
DRILLING METHOD:	Direct push				
WATER LEVEL DEPTHS (ft):	Not measured				

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1 (0-6"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (6-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange brown, SANDY FILL.
		S2	1 to 3	24/9	PUSH			S2 (0-4"): Similar to S1 (6-7"). S2 (4-9"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/11	PUSH			S3: Similar to S2 (4-9"), but with brick fragments up to 2" from 9-11".
		S4	5 to 7	24/4	PUSH			S4: Similar to S2 (4-9").
		S5	7 to 7.5	6/6	PUSH			S5: SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL. Refusal at 7.5 feet.
	10							

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965460
EASTING: 775701.8
GROUND SURFACE EL. (ft): 12.1
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 3.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING G2

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/14	PUSH			S2 (0-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10								S2 (6-14"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, dark brown, URBAN FILL.
								Refusal at 3 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965184
GROUND SURFACE EL. (ft): 11.9
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775652.9
DATE START/END: 2/11/2011 - 2/11/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING G5

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/5	PUSH			S1: WIDELY GRADED SAND (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/9	PUSH			S2 (0-4"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10								S2 (4-9"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 0.5", ~5% silt, black, coal ash and coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/17	PUSH			S3: Similar to S2 (4-9").
		S4	5 to 7	24/20	PUSH			S4 (0-12"): Similar to S2 (4-9").
								S4 (12-20"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, wet, DREDGE FILL.
		S5	7 to 9	24/21	PUSH			S5: Similar to S4 (12-20").
		S6	9 to 11	24/21	PUSH			S6: Similar to S4 (12-20").
	10							
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965055
GROUND SURFACE EL. (ft): 11.6
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775648.2
DATE START/END: 2/11/2011 - 2/11/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING G6

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1 (0-4"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/16	PUSH			S1 (4-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, black, coal ash and brick fragments throughout, URABN FILL.
		S3	3 to 5	24/18	PUSH			S3 (0-16"): Smilar to S2.
		S4	5 to 7	24/20	PUSH			S3 (16-18"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL. S4: Similar to S3 (16-18"), but wet at 17".
		S5	7 to 9	24/21	PUSH			S5: Similar to S3 (16-18") but wet.
	10	S6	9 to 11	24/21	PUSH			S6: Similar to S3 (16-18") but wet.
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964956
EASTING: 775633
GROUND SURFACE EL. (ft): 11.8
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 6.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING G7

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/5	PUSH			S1 (0-3"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (3-5"): NARROWLY RADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10		S2	1 to 3	24/10	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/20	PUSH			S3: Similar to S2.
		S4	5 to 6	12/11	PUSH			S4: SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
	10							Refusal at 6 feet.
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: NM
EASTING: NM
GROUND SURFACE EL. (ft):
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 4.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING G7.5

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1 (0-2"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/5	PUSH			S1 (2-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 4	12/7	PUSH			S3: Similar to S2, but with metal fragment in tip.
	10							Refusal at 4 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965444
GROUND SURFACE EL. (ft): 11.8
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775808.1
DATE START/END: 2/14/2011 - 2/14/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING H2

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1 (0-5"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (5-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10		S2	1 to 3	24/13	PUSH			S2: WIDELY GRADED SAND (SW) ~95% sand, ~5% sub-angular gravel, up to 0.5", dark brown, SANDY FILL.
		S3	3 to 5	24/20	PUSH			S3 (0-10"): Similar to S2.
								S3 (10-20"): SILTY SAND (SM) ~65% fine sand, ~35% silt, gray, DREDGE FILL.
		S4	5 to 7	24/21	PUSH			S4: Similar to S3 (10-20").
		S5	7 to 9	24/22	PUSH			S5: Similar to S3 (10-20").
	10	S6	9 to 11	24/23	PUSH			S6: Similar to S3 (10-20").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965141
EASTING: 775758
GROUND SURFACE EL. (ft): 10.8
DATE START/END: 2/11/2011 - 2/11/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING H5

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/18	PUSH			S2 (0-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (6-18"): WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, black, coal and brick fragments throughout, URBAN FILL.
		S3	3 to 5	24/6	PUSH			S3: Similar to S2 (6-18"), but wet.
		S4	5 to 7	24/20	PUSH			S4 (0-7"): Similar to S2 (6-18").
								S4 (7-20"): SILTY SAND (SM) ~65% fine sand, ~35% silt, gray, shell fragments throughout, DREDGE FILL.
		S5	7 to 9	24/22	PUSH			S5: Similar to S4 (7-20").
	10	S6	9 to 11	24/24	PUSH			S6: Similar to S4 (7-20").
0								Bottom of boring 11 feet, finished as monitoring well.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

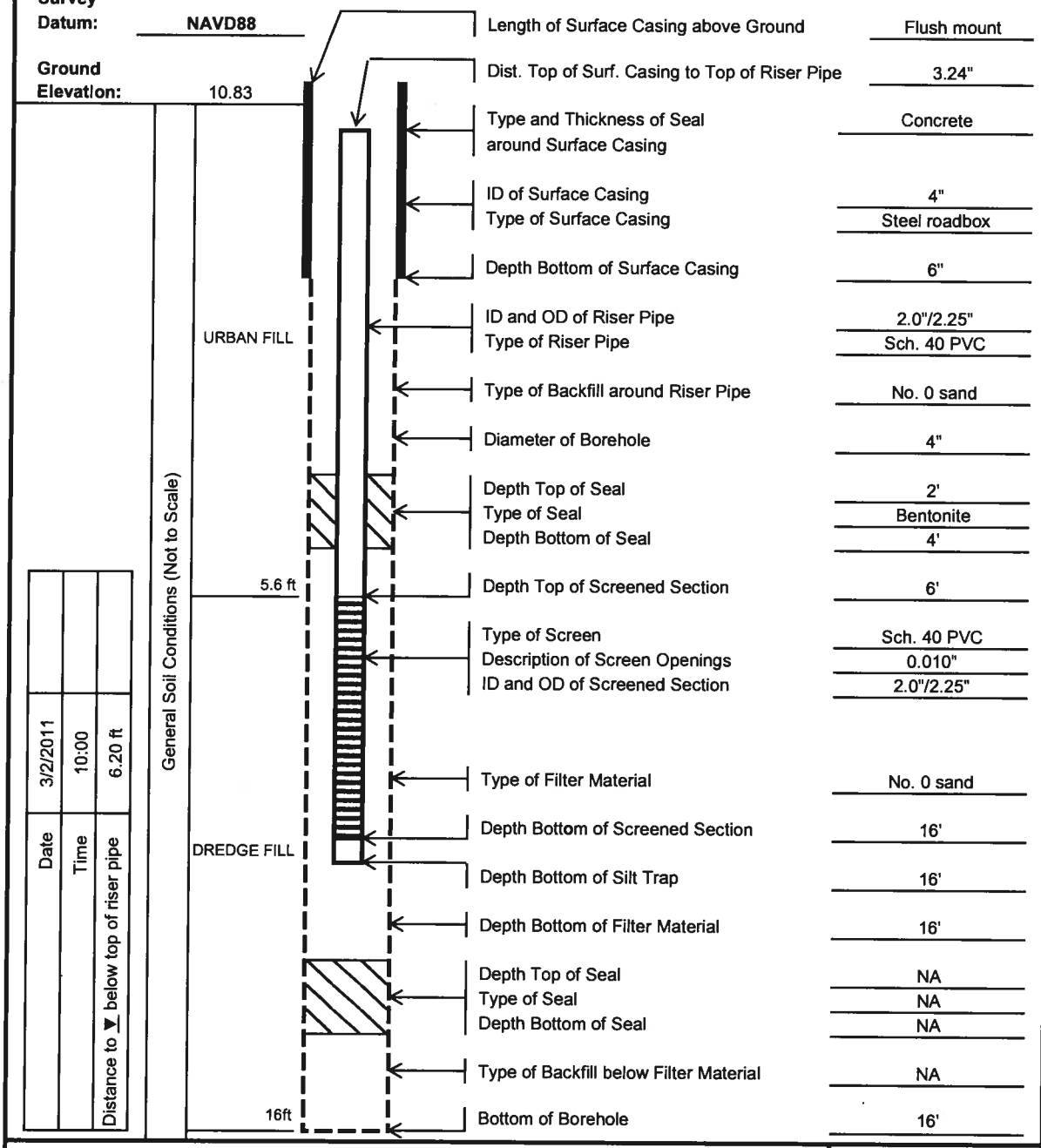
Groundwater Well Installation Log

H5(MW)

Project	Moran Terminal	**GEI Proj. No.**	091503
City / Town	Charlestown, MA	**Location**	South of WTTC building.
Client	Massport		
Contractor	Geologic		
Driller	J. Ferreira	**GEI Rep.** C. Malagrida	**Install Date** 3/2/2011

Survey Datum: NAVD88

Ground Elevation: 10.83



Length of Surface Casing above Ground	Flush mount
Dist. Top of Surf. Casing to Top of Riser Pipe	3.24"
Type and Thickness of Seal around Surface Casing	Concrete
ID of Surface Casing	4"
Type of Surface Casing	Steel roadbox
Depth Bottom of Surface Casing	6"
ID and OD of Riser Pipe	2.0"/2.25"
Type of Riser Pipe	Sch. 40 PVC
Type of Backfill around Riser Pipe	No. 0 sand
Diameter of Borehole	4"
Depth Top of Seal	2'
Type of Seal	Bentonite
Depth Bottom of Seal	4'
Depth Top of Screened Section	6'
Type of Screen	Sch. 40 PVC
Description of Screen Openings	0.010"
ID and OD of Screened Section	2.0"/2.25"
Type of Filter Material	No. 0 sand
Depth Bottom of Screened Section	16'
Depth Bottom of Silt Trap	16'
Depth Bottom of Filter Material	16'
Depth Top of Seal	NA
Type of Seal	NA
Depth Bottom of Seal	NA
Type of Backfill below Filter Material	NA
Bottom of Borehole	16'

Notes:

1 in. = inches
2 ft = feet
3 NA = Not Applicable
4 NM = Not Measured

GEI Consultants

M:\Drafting\Office\Forms\Well Install Log Blank Form

BORING INFORMATION

NORTHING: 2965091
EASTING: 775751.4
GROUND SURFACE EL. (ft): 11.3
DATE START/END: 2/11/2011 - 2/11/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 5.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING H5.5

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/10	PUSH			S2 (0-3"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2 (3-9"): WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, black, coal ash and brick fragments throughout, petroleum-like odor, URBAN FILL.
		S3	3 to 5	24/11	PUSH			S3: Similar to S2 (3-9").
	10							Refusal at 5 feet.
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/17/11

BORING INFORMATION

NORTHING: 2965042
EASTING: 775745.1
GROUND SURFACE EL. (ft): 11.2
DATE START/END: 2/11/2011 - 2/11/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 1.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING H6

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1 (0-2"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (2-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown , SANDY FILL. Refusal at 1 foot.
10								
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

BORING INFORMATION

NORTHING: 2964992
EASTING: 775738.6
GROUND SURFACE EL. (ft): 11.5
DATE START/END: 2/15/2011 - 2/15/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 2.5
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING H6.5

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/2	PUSH			S1: WDIELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 2.5	18/8	PUSH			S2 (0-5"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (5-8"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash and coal fragments throughout, URBAN FILL.
								Refusal at 2.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964943
GROUND SURFACE EL. (ft): 11.3
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 4.0
LOGGED BY: C. Malagrida

EASTING: 775730.2
DATE START/END: 2/14/2011 - 2/14/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING H7

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/9	PUSH			S2: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S3	3 to 4	12/7	PUSH			S3: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash throughout, URBAN FILL.
	10							Refusal at 4 feet.
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964903
GROUND SURFACE EL. (ft): 11.3
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775725.2
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING H7.5

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/2	PUSH			S2: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S3	3 to 5	24/21	PUSH			S3 (0-19"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S4	5 to 7	24/19	PUSH			S3 (19-21"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL. S4: Similar to S3 (19-21").
		S5	7 to 9	24/20	PUSH			S5: Similar to S3 (19-21").
	10	S6	9 to 11	24/22	PUSH			S6: Similar to S3 (19-21").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

BORING INFORMATION

NORTHING: 2965436
EASTING: 775900
GROUND SURFACE EL. (ft): 11.2
DATE START/END: 2/10/2011 - 2/10/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 2.5
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING I2

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 2.5	18/7	PUSH			S2: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								Refusal at 2.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965423
EASTING: 775999.2
GROUND SURFACE EL. (ft): 11.6
DATE START/END: 2/10/2011 - 2/10/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 2.5
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING J2

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/2	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 2.5	18/9	PUSH			S2: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								Refusal at 2.5 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965313
EASTING: 775980
GROUND SURFACE EL. (ft): 11.9
DATE START/END: 2/10/2011 - 2/10/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 3.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING J3

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 0.5", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/16	PUSH			S2 (0-3"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10								S2 (3-16"): WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, black, coal ash and brick fragments throughout, URBAN FILL.
								Refusal at 3 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965215
GROUND SURFACE EL. (ft): 11.8
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775964.1
DATE START/END: 2/10/2011 - 2/10/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING J4

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/3	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/12	PUSH			S2 (0-4"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2(4-12"): WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, black, coal ash and coal fragments throughout, URBAN FILL.
10		S3	3 to 5	24/16	PUSH			S3: Similar to S2 (4-12").
		S4	5 to 7	24/20	PUSH			S4: Similar to S2 (4-12").
		S5	7 to 9	24/7	PUSH			S5: SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, wet, DREDGE FILL.
	10	S6	9 to 11	24/22	PUSH			S6: Similar to S5.
0								Bottom of boring 11 feet, finished as monitoring well.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

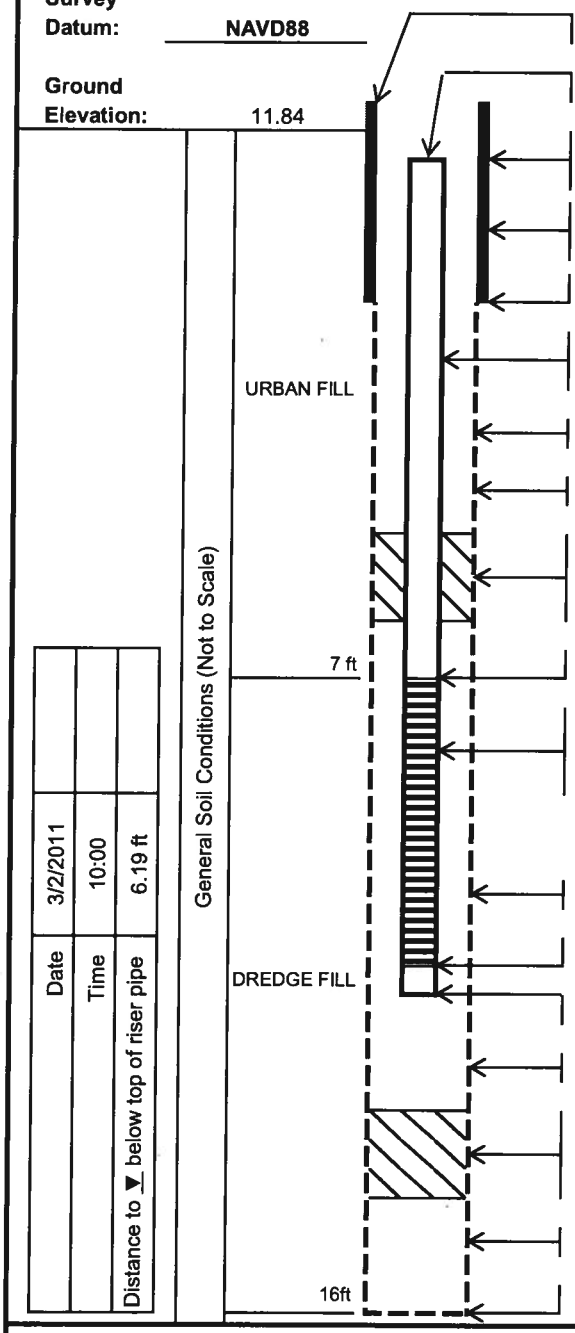
Groundwater Well Installation Log

J4(MW)

Project	Moran Terminal	**GEI Proj. No.**	091503
City / Town	Charlestown, MA	**Location**	East of WTTC building.
Client	Massport		
Contractor	Geologic		
Driller	J. Ferreira	**GEI Rep.** C. Malagrida	**Install Date** 3/2/2011

Survey Datum: NAVD88

Ground Elevation: 11.84



Length of Surface Casing above Ground	Flush mount
Dist. Top of Surf. Casing to Top of Riser Pipe	3.24"
Type and Thickness of Seal around Surface Casing	Concrete
ID of Surface Casing	4"
Type of Surface Casing	Steel roadbox
Depth Bottom of Surface Casing	6"
ID and OD of Riser Pipe	1.0"/1.15"
Type of Riser Pipe	Sch. 40 PVC
Type of Backfill around Riser Pipe	No. 0 sand
Diameter of Borehole	4"
Depth Top of Seal	2'
Type of Seal	Bentonite
Depth Bottom of Seal	4'
Depth Top of Screened Section	6'
Type of Screen	Sch. 40 PVC
Description of Screen Openings	0.010"
ID and OD of Screened Section	1.0"/1.15"
Type of Filter Material	No. 0 sand
Depth Bottom of Screened Section	16'
Depth Bottom of Silt Trap	16'
Depth Bottom of Filter Material	16'
Depth Top of Seal	NA
Type of Seal	NA
Depth Bottom of Seal	NA
Type of Backfill below Filter Material	NA
Bottom of Borehole	16'

Date	Time	Distance to ▼ below top of riser pipe
3/2/2011	10:00	6.19 ft

Notes:

1 in. = inches
2 ft = feet
3 NA = Not Applicable
4 NM = Not Measured

GEI Consultants

M:\Drafting\Office\Forms\Well Install Log Blank Form

BORING INFORMATION

NORTHING: 2965305
EASTING: 776182.7
GROUND SURFACE EL. (ft): 10.5
DATE START/END: 2/10/2011 - 2/10/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 1.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P1

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand. ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
								Refusal at 1 foot.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965317
GROUND SURFACE EL. (ft): 11.4
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 1.0
LOGGED BY: C. Malagrida

EASTING: 776084.2
DATE START/END: 2/10/2011 - 2/10/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P2

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand. ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10								Refusal at 1 foot.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965263
GROUND SURFACE EL. (ft): 11.7
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 1.0
LOGGED BY: C. Malagrida

EASTING: 776037.1
DATE START/END: 2/10/2011 - 2/10/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P3

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
								Refusal at 1 foot.
10								
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965164
EASTING: 776024.9
GROUND SURFACE EL. (ft): 11.1
DATE START/END: 2/10/2011 - 2/10/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P4

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/18	PUSH			S2 (0-6"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (6-18"): WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, black, coal and brick fragments throughout, URBAN FILL.
		S3	3 to 5	24/6	PUSH			S3: Similar to S2 (6-18"), but wet.
		S4	5 to 7	24/20	PUSH			S4 (0-7"): Similar to S2 (6-18").
								S4 (7-20"): SILTY SAND (SM) ~65% fine sand, ~35% silt, gray, shell fragments throughout, DREDGE FILL.
		S5	7 to 9	24/22	PUSH			S5: Similar to S4 (7-20").
	10	S6	9 to 11	24/24	PUSH			S6: Similar to S4 (7-20").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965120
EASTING: 775969.8
GROUND SURFACE EL. (ft): 10.9
DATE START/END: 2/11/2011 - 2/11/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 4.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P5

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1 (0-4"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (4-7"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2: Similar to S1 (4-7").
10		S2	1 to 3	24/9	PUSH			
		S3	3 to 4	12/3	PUSH			S3: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 0.5", ~5% silt, black, coal ash throughout, wood in tip of macrocore, URBAN FILL.
								Refusal at 4 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

BORING INFORMATION

NORTHING: 2965132
EASTING: 775870.7
GROUND SURFACE EL. (ft): 10.9
DATE START/END: 2/11/2011 - 2/11/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 1.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P6

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/3	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10								Refusal at 1 foot.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964709
GROUND SURFACE EL. (ft): 10.6
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 3.0
LOGGED BY: C. Malagrida

EASTING: 775461.1
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P10

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/8	PUSH			S2: WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, dark gray, SANDY FILL.
								Refusal at 3 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964703
EASTING: 775361.2
GROUND SURFACE EL. (ft): 10.5
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P11

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/7	PUSH			S1 (0-4"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/16	PUSH			S1 (4-7"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL. S2: Similar to S1 (4-7").
		S3	3 to 5	24/20	PUSH			S3: Similar to S1 (4-7").
		S4	5 to 7	24/16	PUSH			S4: Similar to S1 (4-7").
		S5	7 to 9	24/3	PUSH			S5: Similar to S1 (4-7").
0	10	S6	9 to 11	24/18	PUSH			S6: SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964736
EASTING: 775289.2
GROUND SURFACE EL. (ft): 10.5
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P12

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
10		S1	0 to 1	12/7	PUSH			S1 (0-5"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (5-7"): WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, dark brown, SANDY FILL.
		S2	1 to 3	24/10	PUSH			S2: Similar to S1 (5-7").
		S3	3 to 5	24/15	PUSH			S3: Similar to S1 (5-7"), brick fragments up to 1" from 7-12".
		S4	5 to 7	24/22	PUSH			S4 (0-6"): Similar to S3. S4 (6-22"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, wet from 12", DREDGE FILL.
		S5	7 to 9	24/21	PUSH			S5: Similar to S4 (6-22").
		S6	9 to 11	24/20	PUSH			S6: Similar to S4 (6-22").
0	10							Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964631
EASTING: 775102.4
GROUND SURFACE EL. (ft): 9.9
DATE START/END: 2/16/2011 - 2/16/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P13

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/5	PUSH			S1: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 3	24/9	PUSH			S2: WIDELY GRADED AND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash from 5-8", URBAN FILL.
		S3	3 to 5	24/15	PUSH			S3 (0-9"): Similar to S2.
								S3 (9-15"): SILT (ML) ~100% silt, gray, DREDGE FILL.
		S4	5 to 7	24/0	PUSH			S4: No recovery.
		S5	7 to 9	24/16	PUSH			S5: Similar to S3 (9-15"), but wet.
0	10	S6	9 to 11	24/20	PUSH			S6: Similar to S3 (9-15"), but wet.
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965044
GROUND SURFACE EL. (ft): 11.4
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 4.0
LOGGED BY: C. Malagrida

EASTING: 775355.8
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P14

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10		S2	1 to 3	24/9	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, URBAN FILL.
		S3	3 to 4	12/4	PUSH			S3: Similar to S2.
								Refusal at 4 feet.
	10							
0								

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964560
GROUND SURFACE EL. (ft): 9.6
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 774996.7
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P15

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/7	PUSH			S1: NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 3	24/9	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, URBAN FILL.
		S3	3 to 5	24/14	PUSH			S3 (0-9"): WIDELY GRADED SAND (SW) ~95% sand, ~5% silt, gray to brown, URBAN FILL.
								S3 (9-14"): SILT (ML) ~100% silt, gray, DREDGE FILL.
		S4	5 to 7	24/0	PUSH			S4: No recovery.
		S5	7 to 9	24/0	PUSH			S5: No recovery.
0	10	S6	9 to 11	24/20	PUSH			S6: Similar to S3 (9-14").
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964646
GROUND SURFACE EL. (ft): 9.5
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775050
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P16

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/11	PUSH			S1: WIDELY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 3	24/9	PUSH			S2: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash from 7-9", URBAN FILL.
		S3	3 to 5	24/20	PUSH			S3 (0-9"): Similar to S2, but with brick fragments from 8-9".
								S3 (9-20"): SILT (ML) ~100% silt, gray, DREDGE FILL.
		S4	5 to 7	24/10	PUSH			S4: Similar to S3 (9-20").
		S5	7 to 9	24/23	PUSH			S5: Similar to S3 (9-20").
0	10	S6	9 to 11	24/24	PUSH			S6: Similar to S3 (9-20").
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964820
GROUND SURFACE EL. (ft): 9.2
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775133.8
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P17

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/5	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/11	PUSH			S2 (0-9"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (9-11"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
		S3	3 to 5	24/16	PUSH			S3 (0-11"): Similar to S2 (13-17").
								S3 (11-16"): SILT (ML) ~100% silt, gray, wet, DREDGE FILL.
		S4	5 to 7	24/21	PUSH			S4: Similar to S3 (11-16").
		S5	7 to 9	24/20	PUSH			S5: Similar to S3 (11-16").
0	10	S6	9 to 11	24/21	PUSH			S6: Similar to S3 (11-16").
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2964903
GROUND SURFACE EL. (ft): 13.1
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775181.6
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P18

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/6	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
		S2	1 to 3	24/17	PUSH			S2 (0-9"): WIDELY GRADED SAND (SW) ~100% sand, gray to brown, SANDY FILL.
								S2 (9-13"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (13-17"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal fragments throughout, URBAN FILL.
10		S3	3 to 5	24/14	PUSH			S3 (0-11"): Similar to S2 (13-17").
								S3 (11-14"): SILT (ML) ~100% silt, gray, wet, DREDGE FILL.
		S4	5 to 7	24/20	PUSH			S4: Similar to S3 (11-14").
		S5	7 to 9	24/16	PUSH			S5: Similar to S3 (11-14").
	10	S6	9 to 11	24/21	PUSH			S6: Similar to S3 (11-14").
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965178
EASTING: 775337.3
GROUND SURFACE EL. (ft): 11.2
DATE START/END: 2/14/2011 - 2/14/2011
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
DRILLING COMPANY: Geologic, Inc.
TOTAL DEPTH (ft): 11.0
DRILLER NAME: J. Ferreira
LOGGED BY: C. Malagrida
RIG TYPE: Geoprobe 54DT

BORING P19

DRILLING INFORMATION

HAMMER TYPE: NA
CASING I.D./O.D.: 3 inch/ 3.25 inch
CORE BARREL TYPE: Macrocore
AUGER I.D./O.D.: NA / NA
DRILL ROD O.D.: NA inch NW
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer
S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger
Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter
NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/4	PUSH			S1: WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL.
10		S2	1 to 3	24/10	PUSH			S2 (0-8"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
								S2 (8-10"): WIDELY GRADED SAND WITH SILT(SW-SM) ~90% sand, ~10% silt, dark brown, URBAN FILL.
		S3	3 to 5	24/18	PUSH			S3 (0-6"): Similar to S2 (8-10"), but wet at 4".
								S3 (6-18"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S4	5 to 7	24/20	PUSH			S4: Similar to S3 (6-18").
		S5	7 to 9	24/21	PUSH			S5: Similar to S3 (6-18").
		S6	9 to 11	24/22	PUSH			S6: Similar to S3 (6-18").
	10							
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: NM
GROUND SURFACE EL. (ft):
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: NM
DATE START/END: 2/16/2011 - 2/16/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P20

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/8	PUSH			S1 (0-3"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (3-8"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
		S2	1 to 3	24/10	PUSH			S2: Similar to S1 (3-8").
		S3	3 to 5	24/6	PUSH			S3: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, URBAN FILL.
		S4	5 to 7	24/4	PUSH			S4: Similar to S3, but with brick fragments up to 2".
		S5	7 to 9	24/13	PUSH			S5 (0-3"): Similar to S4. S5 (3-13"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, wet, DREDGE FILL.
	10	S6	9 to 11	24/20	PUSH			S6: Similar to S5 (3-13").
								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965376
GROUND SURFACE EL. (ft): 11.8
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775434
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P21

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/8	PUSH			S1 (0-4"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (4-8"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL. S2 (0-3"): Similar to S1 (4-8").
10		S2	1 to 3	24/10	PUSH			S2 (3-10"): WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, coal ash throughout, URBAN FILL.
		S3	3 to 5	24/19	PUSH			S3: Similar to S2 (3-10").
		S4	5 to 7	24/8	PUSH			S4: SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, DREDGE FILL.
		S5	7 to 9	24/20	PUSH			S5: Similar to S4, but wet at 8".
	10	S6	9 to 11	24/22	PUSH			S6: Similar to S4.
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

BORING INFORMATION

NORTHING: 2965435
GROUND SURFACE EL. (ft): 11.8
VERT./HORIZ. DATUMS: NAVD 88/NAD 83
TOTAL DEPTH (ft): 11.0
LOGGED BY: C. Malagrida

EASTING: 775469.2
DATE START/END: 2/15/2011 - 2/15/2011
DRILLING COMPANY: Geologic, Inc.
DRILLER NAME: J. Ferreira
RIG TYPE: Geoprobe 54DT

BORING P22

DRILLING INFORMATION

HAMMER TYPE: NA
AUGER I.D./O.D.: NA / NA
DRILLING METHOD: Direct push
WATER LEVEL DEPTHS (ft): Not measured

CASING I.D./O.D.: 3 inch/ 3.25 inch
DRILL ROD O.D.: NA inch NW

CORE BARREL TYPE: Macrocore
CORE BARREL I.D./O.D.: 2.0 inch / 2.25 inch

ABBREVIATIONS:
Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores>4 in / Pen.,%
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information: Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD	PID Jar Headspace/ Drilling Remarks	Graphic Log	Soil and Rock Description
		S1	0 to 1	12/8	PUSH			S1 (0-3"): WIDELY GRADED SAND WITH GRAVEL (SW) ~80% sand, ~15% sub-angular gravel, up to 1", ~5% silt, light brown, SANDY FILL. S1 (3-8"): NARROWLY GRADED SAND (SP) ~95% medium sand, ~5% silt, orange to brown, SANDY FILL.
10		S2	1 to 3	24/10	PUSH			S2: Similar to S1 (3-8").
		S3	3 to 5	24/6	PUSH			S3: WIDELY GRADED SAND WITH SILT (SW-SM) ~90% sand, ~10% silt, black, URBAN FILL.
		S4	5 to 7	24/4	PUSH			S4: Similar to S3, but with brick fragments up to 2".
		S5	7 to 9	24/13	PUSH			S5 (0-3"): Similar to S4. S5 (3-13"): SILTY SAND (SM) ~60% fine sand, ~40% silt, gray, wet, DREDGE FILL.
	10	S6	9 to 11	24/20	PUSH			S6: No recovery
0								Bottom of boring 11 feet.

NOTES: PID jar headspace measurements not collected during drilling.

PROJECT NAME: PCB Investigation
CITY/STATE: Charlestown, Massachusetts
GEI PROJECT NUMBER: 091503

GEI Consultants

GEI WOBURN STD 6-NORTH-EAST-GRAPHIC LOG MORAN TERMINAL 091503.GPJ GEI DATA TEMPLATE.GDT 6/15/11

Appendix E

Laboratory Data Reports

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

February 21, 2011

ANALYTICAL TEST RESULTS

Raymond Siegener
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
TEL: (781) 721-4098
FAX: (781) 721-4073

Subject: 09150-3 Moran Terminal AUL Drilling

Workorder No.: 1102025

Dear Raymond Siegener:

AMRO Environmental Laboratories Corp. received 22 samples on 2/11/2011 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of 36 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001.

Hard copy of the State Certification is available upon request.

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025
Date Received: 2/11/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102025-01A	091503-P1-S1(0-0.5)	2/10/2011	9:30 AM
1102025-02A	091503-P2-S1(0-0.5)	2/10/2011	9:41 AM
1102025-03A	091503-P3-S1(0-0.5)	2/10/2011	9:52 AM
1102025-04A	091503-P4-S2(1-3)	2/10/2011	10:21 AM
1102025-05A	091503-P4-S3(3-5)	2/10/2011	10:22 AM
1102025-06A	091503-P4-S4(5-7)	2/10/2011	10:23 AM
1102025-07A	091503-J3-S1(0-0.5)	2/10/2011	10:43 AM
1102025-08A	091503-J3-S2(1-3)	2/10/2011	10:44 AM
1102025-09A	091503-J4-S1(0-0.5)	2/10/2011	11:20 AM
1102025-10A	091503-J4-S2(1-3)	2/10/2011	11:21 AM
1102025-11A	091503-J4-S3(3-5)	2/10/2011	11:22 AM
1102025-12A	091503-J4-S4(5-7)	2/10/2011	11:23 AM
1102025-13A	091503-J2-S1(0-0.5)	2/10/2011	12:05 PM
1102025-14A	091503-J2-S2(1-2.5)	2/10/2011	12:06 PM
1102025-15A	091503-I2-S1(0-0.5)	2/10/2011	12:18 PM
1102025-16A	091503-I2-S2(1-2.5)	2/10/2011	12:19 PM
1102025-17A	091503-I2-S20	2/10/2011	12:01 PM
1102025-18A	091503-J4-S20	2/10/2011	12:00 PM
1102025-19A	091503-E3-S1(0-0.5)	2/10/2011	2:50 PM
1102025-20A	091503-E3-S2(1-3)	2/10/2011	2:51 PM
1102025-21A	091503-E3-S3(3-5)	2/10/2011	2:52 PM
1102025-22A	091503-E3-S4(5-7)	2/10/2011	2:53 PM

AMRO Environmental Laboratories Corp.

17-Feb-11

Lab Order: 1102025
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Dri

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102025-01A	091503-P1-S1(0-0.5)	2/10/2011 9:30:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-02A	091503-P2-S1(0-0.5)	2/10/2011 9:41:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-03A	091503-P3-S1(0-0.5)	2/10/2011 9:52:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-04A	091503-P4-S2(1-3)	2/10/2011 10:21:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-05A	091503-P4-S3(3-5)	2/10/2011 10:22:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-06A	091503-P4-S4(5-7)	2/10/2011 10:23:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	

AMRO Environmental Laboratories Corp.

17-Feb-11

Lab Order: 1102025
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Dri

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102025-07A	091503-J3-S1(0-0.5)	2/10/2011 10:43:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-08A	091503-J3-S2(1-3)	2/10/2011 10:44:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
					2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-09A	091503-J4-S1(0-0.5)	2/10/2011 11:20:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-10A	091503-J4-S2(1-3)	2/10/2011 11:21:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-11A	091503-J4-S3(3-5)	2/10/2011 11:22:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-12A	091503-J4-S4(5-7)	2/10/2011 11:23:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	

AMRO Environmental Laboratories Corp.

17-Feb-11

Lab Order: 1102025
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Dri

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102025-12A	091503-J4-S4(5-7)	2/10/2011 11:23:00 AM	Soil	Percent Moisture		2/11/2011	
						R46219	
1102025-13A	091503-J2-S1(0-0.5)	2/10/2011 12:05:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/14/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-14A	091503-J2-S2(1-2.5)	2/10/2011 12:06:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-15A	091503-I2-S1(0-0.5)	2/10/2011 12:18:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-16A	091503-I2-S2(1-2.5)	2/10/2011 12:19:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-17A	091503-I2-S20	2/10/2011 12:01:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-18A	091503-J4-S20	2/10/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	

AMRO Environmental Laboratories Corp.

17-Feb-11

Lab Order: 1102025
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Dri

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102025-18A	091503-J4-S20	2/10/2011 12:00:00 PM	Soil	Percent Moisture		2/11/2011	
						R46219	
1102025-19A	091503-E3-S1(0-0.5)	2/10/2011 2:50:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-20A	091503-E3-S2(1-3)	2/10/2011 2:51:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21071	
				Percent Moisture		2/11/2011	
						R46219	
1102025-21A	091503-E3-S3(3-5)	2/10/2011 2:52:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21072	
				Percent Moisture		2/11/2011	
						R46219	
1102025-22A	091503-E3-S4(5-7)	2/10/2011 2:53:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/15/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/11/2011	21072	
				Percent Moisture		2/11/2011	
						R46219	

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102025

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 1 of 3

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-P1-S1(0-0.5)	2/10/11	0930	SO	1	CMM	x	
	091503-P2-S1(0-0.5)		0941	SO	1	CMM	x	
	091503-P3-S1(0-0.5)		0952	SO	1	CMM	x	
	091503-P4-S2(1-3)		1021	SO	1	CMM	x	
	091503-P4-S3(3-5)		1022	SO	1	CMM	x	
	091503-P4-S4(5-7)		1023	SO	1	CMM	x	
	091503-J3-S1(0-0.5)		1043	SO	1	CMM	x	
	091503-J3-S2(1-3)		1044	SO	1	CMM	x	
	091503-J4-S1(0-0.5)		~~10~~ 1120	SO	1	CMM	x	
	091503-J4-S2(1-3)		1121	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malaganda	2/10/11	~~4~~ 1635	1. GEI FRIDGE
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
2. Leslie A Lombardo	2/11/11	12:05	2. W H Lawson
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
3.			3.
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
4. W H Lawson	2/11/11	1300	4. [signature]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day X 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

7

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102025

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503- J4-S3 (3-5)	2/10/11	1122	SO	1	CMM	x	
	091503- J4-S4 (5-7)		1123	SO	1	CMM	x	
	091503- J2-S1 (0-0.5)		1205	SO	1	CMM	x	
	091503- J2-S2 (1-2.5)		1206	SO	1	CMM	x	
	091503- I1-S1 (0-0.5)		1218	SO	1	CMM	x	
	091503- I2-S2 (1-2.5)		1219	SO	1	CMM	x	
	091503- I2-S20		1201	SO	1	CMM	x	
	091503- J4-S20		1200	SO	1	CMM	x	
	091503- E3-S1 (0-0.5)		1450	SO	1	CMM	x	
	091503- E3-S2 (1-3)		1451	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagnda	2/10/11	1635	1. GEI FRIDGE
2. Cecilia Alonzo	2/11/11	1205	2. [signature]
3.			3.
4. [signature]	2/11/11	1300	4. [signature]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102025

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 3 of 3

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-63-55(3-5)	2/10/11	1452	SO	1	CMM	x	
	091503-63-54(5-7)		1453	SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	

Preservative: None

Analysis: PCBs (8082)**

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malaranda	2/10/11	1635	1. GH FRIDGE
2. [illegible]	2/11/11	12:05	2. [illegible]
3.			3.
4. [illegible]	2/11/11	1300	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Mirta Ghiraldi

From: Nancy Stewart
Sent: Wednesday, February 16, 2011 4:46 PM
To: Mirta Ghiraldi
Subject: FW: Moran Terminal PCBs

Nancy Stewart
Vice President
AMRO Env. Lab. Corp.
111 Herrick Street
Merrimack, NH 03054
tel.(603)424-2022 direct (603)620-0496 fax.(603)429-8496
www.amrolabs.com

CELEBRATING OVER 24 YEARS OF SERVICE!

From: Haley, Heather [mailto:HHaley@geiconsultants.com]
Sent: Wednesday, February 16, 2011 4:44 PM
To: Nancy Stewart
Subject: RE: Moran Terminal PCBs

Hi Nancy,

So the correct sample name that should be on the COC is 091503-**I2**-S1(0-0.5) 2/10/11 1218. There is no I1 sample. Do you need me to send you a corrected COC?

Thanks,
Heather

From: Nancy Stewart [mailto:nancy@amrolabs.com]
Sent: Wednesday, February 16, 2011 3:11 PM
To: Haley, Heather
Cc: Mirta Ghiraldi
Subject: FW: Moran Terminal PCBs

Hi Heather,

It was very nice to meet you last week.

Can you help with this email I sent to Ray last Friday?

Thanks, Nancy

Nancy Stewart
Vice President
AMRO Env. Lab. Corp.
111 Herrick Street
Merrimack, NH 03054
tel.(603)424-2022 direct (603)620-0496 fax.(603)429-8496
www.amrolabs.com

CELEBRATING OVER 24 YEARS OF SERVICE!

From: Nancy Stewart
Sent: Friday, February 11, 2011 2:39 PM
To: Siegener, Ray
Subject: Moran Terminal PCBs

Hi Ray,

It was nice to see you the other day.

There was just one discrepancy on the samples we received today.

Chain says: 091503-**I1**-S1(0-0.5) 2/10/11 1218
Label says: 091503-**I2**-S1(0-0.5) 2/10/11 1218

Please let us know the correct ID.

Thanks, Nancy

Nancy Stewart
Vice President
AMRO Env. Lab. Corp.
111 Herrick Street
Merrimack, NH 03054
tel.(603)424-2022 direct (603)620-0496 fax.(603)429-8496
www.amrolabs.com

CELEBRATING OVER 24 YEARS OF SERVICE!

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AMRO Environmental Laboratories Corporation

SAMPLE RECEIPT CHECKLIST

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Client: GEI
Project Name: 09150-3 Moran Terminal
Ship via: (circle one) Fed Ex., UPS, AMRO Courier, Hand Del., Other Courier, Other:

AMRO ID: 1102025
Date Rec.: 2.11.11
Date Due: 2.18.11

Items to be Checked Upon Receipt	Yes	No	NA	Comments
1. Army Samples received in individual plastic bags?			✓	
2. Custody Seals present?			✓	
3. Custody Seals Intact?			✓	
4. Air Bill included in folder if received?			✓	
5. Is COC included with samples?	✓			
6. Is COC signed and dated by client?	✓			
7. Laboratory receipt temperature. TEMP = 5°C				
Samples rec. with ice ✓ ice packs ✓ neither ___				
8. Were samples received the same day they were sampled?		✓		
Is client temperature = or <6°C ?	✓			
If no obtain authorization from the client for the analyses.				
Client authorization from: Date: Obtained by:				
9. Is the COC filled out correctly and completely?	✓			
10. Does the info on the COC match the samples?	✓	✓		see email
11. Were samples rec. within holding time?	✓			
12. Were all samples properly labeled?	✓			
13. Were all samples properly preserved?	✓			
14. Were proper sample containers used?	✓			
15. Were all samples received intact? (none broken or leaking)	✓			
16. Were VOA vials rec. with no air bubbles?			✓	
17. Were the sample volumes sufficient for requested analysis?	✓			
18. Were all samples received?	✓			
19. VPH and VOA Soils only:			✓	
Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)				
Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk				
If M or SB:				
Does preservative cover the soil?				
If NO then client must be faxed.				
Does preservation level come close to the fill line on the vial?				
If NO then client must be faxed.				
Were vials provided by AMRO?				
If NO then weights MUST be obtained from client				
Was dry weight aliquot provided?				
If NO then fax client and inform the VOA lab ASAP.				
20. Subcontracted Samples:			✓	
What samples sent:				
Where sent:				
Date:				
Analysis:				
TAT:				
21. Information entered into:				
Internal Tracking Log?			✓	
Dry Weight Log?	✓			
Client Log?			✓	
Composite Log?			✓	
Filtration Log?			✓	

Received By: CB Date: 2.11.11 Logged in By: CB Date: 2.11.11
Labeled By: CB Date: 2.11.11 Checked By: MG Date: 2-14-11

NA= Not Applicable

CASE NARRATIVE

PCBs:

1. No QC deviations were noted.

MassDEP Analytical Protocol Certification Form

Laboratory Name: AMRO Environmental Lab. Corp. Project #: 09150-3

Project Location: Moran Terminal AVL Drilling RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
1102025-01 → -22

Matrices: Groundwater/Surface Water Soil/Sediment ✓ Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A ✓	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	(Yes) No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Nancy Stewart Position: Vice President

Printed Name: Nancy Stewart Date: 2-21-11

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-01
Collection Date: 2/10/2011 9:30:00 AM
Collection Time:
Client Sample ID: 091503-P1-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1221	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1232	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1242	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1248	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1254	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1260	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1262	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Aroclor 1268	ND	480		µg/Kg-dry	10	2/14/2011 4:46:00 PM
Surr: Tetrachloro-m-xylene	128	30-150		%REC	10	2/14/2011 4:46:00 PM
Surr: Decachlorobiphenyl	131	30-150		%REC	10	2/14/2011 4:46:00 PM

Lab ID: 1102025-02
Collection Date: 2/10/2011 9:41:00 AM
Collection Time:
Client Sample ID: 091503-P2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/14/2011 5:12:00 PM
Surr: Tetrachloro-m-xylene	127	30-150		%REC	10	2/14/2011 5:12:00 PM
Surr: Decachlorobiphenyl	121	30-150		%REC	10	2/14/2011 5:12:00 PM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-03
Collection Date: 2/10/2011 9:52:00 AM
Collection Time:
Client Sample ID: 091503-P3-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/14/2011 5:39:00 PM
Surr: Tetrachloro-m-xylene	132	30-150		%REC	10	2/14/2011 5:39:00 PM
Surr: Decachlorobiphenyl	125	30-150		%REC	10	2/14/2011 5:39:00 PM

Lab ID: 1102025-04
Collection Date: 2/10/2011 10:21:00 AM
Collection Time:
Client Sample ID: 091503-P4-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1254	1,300	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1260	780	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/14/2011 6:05:00 PM
Surr: Tetrachloro-m-xylene	113	30-150		%REC	10	2/14/2011 6:05:00 PM
Surr: Decachlorobiphenyl	137	30-150		%REC	10	2/14/2011 6:05:00 PM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-05
Collection Date: 2/10/2011 10:22:00 AM
Collection Time:
Client Sample ID: 091503-P4-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1254	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/14/2011 6:32:00 PM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/14/2011 6:32:00 PM
Surr: Decachlorobiphenyl	114	30-150		%REC	10	2/14/2011 6:32:00 PM

Lab ID: 1102025-06
Collection Date: 2/10/2011 10:23:00 AM
Collection Time:
Client Sample ID: 091503-P4-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1248	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1254	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/14/2011 8:44:00 PM
Surr: Tetrachloro-m-xylene	122	30-150		%REC	10	2/14/2011 8:44:00 PM
Surr: Decachlorobiphenyl	128	30-150		%REC	10	2/14/2011 8:44:00 PM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-07
Collection Date: 2/10/2011 10:43:00 AM
Collection Time:
Client Sample ID: 091503-J3-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/14/2011 9:11:00 PM
Surr: Tetrachloro-m-xylene	128	30-150		%REC	10	2/14/2011 9:11:00 PM
Surr: Decachlorobiphenyl	129	30-150		%REC	10	2/14/2011 9:11:00 PM

Lab ID: 1102025-08
Collection Date: 2/10/2011 10:44:00 AM
Collection Time:
Client Sample ID: 091503-J3-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Aroclor 1242	27,000	5,600		µg/Kg-dry	100	2/16/2011 4:42:00 AM
Aroclor 1248	ND	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Aroclor 1254	20,000	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Aroclor 1260	10,000	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/14/2011 9:37:00 PM
Surr: Tetrachloro-m-xylene	63.3	30-150		%REC	10	2/14/2011 9:37:00 PM
Surr: Decachlorobiphenyl	147	30-150		%REC	10	2/14/2011 9:37:00 PM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-09
Collection Date: 2/10/2011 11:20:00 AM
Collection Time:
Client Sample ID: 091503-J4-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/15/2011 12:27:00 PM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/15/2011 12:27:00 PM
Surr: Decachlorobiphenyl	117	30-150		%REC	10	2/15/2011 12:27:00 PM

Lab ID: 1102025-10
Collection Date: 2/10/2011 11:21:00 AM
Collection Time:
Client Sample ID: 091503-J4-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/15/2011 12:54:00 PM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/15/2011 12:54:00 PM
Surr: Decachlorobiphenyl	118	30-150		%REC	10	2/15/2011 12:54:00 PM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-11
Collection Date: 2/10/2011 11:22:00 AM
Collection Time:
Client Sample ID: 091503-J4-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/15/2011 1:20:00 PM
Surr: Tetrachloro-m-xylene	110	30-150		%REC	10	2/15/2011 1:20:00 PM
Surr: Decachlorobiphenyl	117	30-150		%REC	10	2/15/2011 1:20:00 PM

Lab ID: 1102025-12
Collection Date: 2/10/2011 11:23:00 AM
Collection Time:
Client Sample ID: 091503-J4-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1248	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1254	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/14/2011 11:23:00 PM
Surr: Tetrachloro-m-xylene	113	30-150		%REC	10	2/14/2011 11:23:00 PM
Surr: Decachlorobiphenyl	135	30-150		%REC	10	2/14/2011 11:23:00 PM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-13
Collection Date: 2/10/2011 12:05:00 PM
Collection Time:
Client Sample ID: 091503-J2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/14/2011 11:49:00 PM
Surr: Tetrachloro-m-xylene	123	30-150		%REC	10	2/14/2011 11:49:00 PM
Surr: Decachlorobiphenyl	115	30-150		%REC	10	2/14/2011 11:49:00 PM

Lab ID: 1102025-14
Collection Date: 2/10/2011 12:06:00 PM
Collection Time:
Client Sample ID: 091503-J2-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1254	3,700	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1260	840	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/15/2011 12:15:00 AM
Surr: Tetrachloro-m-xylene	127	30-150		%REC	10	2/15/2011 12:15:00 AM
Surr: Decachlorobiphenyl	135	30-150		%REC	10	2/15/2011 12:15:00 AM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-15
Collection Date: 2/10/2011 12:18:00 PM
Collection Time:
Client Sample ID: 091503-I2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/15/2011 12:42:00 AM
Surr: Tetrachloro-m-xylene	120	30-150		%REC	10	2/15/2011 12:42:00 AM
Surr: Decachlorobiphenyl	114	30-150		%REC	10	2/15/2011 12:42:00 AM

Lab ID: 1102025-16
Collection Date: 2/10/2011 12:19:00 PM
Collection Time:
Client Sample ID: 091503-I2-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1248	8,200	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1254	8,100	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1260	3,400	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/15/2011 1:08:00 AM
Surr: Tetrachloro-m-xylene	99.1	30-150		%REC	10	2/15/2011 1:08:00 AM
Surr: Decachlorobiphenyl	140	30-150		%REC	10	2/15/2011 1:08:00 AM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-17
Collection Date: 2/10/2011 12:01:00 PM
Collection Time:
Client Sample ID: 091503-I2-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1248	1,100	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1254	710	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/15/2011 1:34:00 AM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/15/2011 1:34:00 AM
Surr: Decachlorobiphenyl	121	30-150		%REC	10	2/15/2011 1:34:00 AM

Lab ID: 1102025-18
Collection Date: 2/10/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-J4-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/15/2011 2:01:00 AM
Surr: Tetrachloro-m-xylene	109	30-150		%REC	10	2/15/2011 2:01:00 AM
Surr: Decachlorobiphenyl	119	30-150		%REC	10	2/15/2011 2:01:00 AM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-19
Collection Date: 2/10/2011 2:50:00 PM
Collection Time:
Client Sample ID: 091503-E3-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/15/2011 2:27:00 AM
Surr: Tetrachloro-m-xylene	114	30-150		%REC	10	2/15/2011 2:27:00 AM
Surr: Decachlorobiphenyl	108	30-150		%REC	10	2/15/2011 2:27:00 AM

Lab ID: 1102025-20
Collection Date: 2/10/2011 2:51:00 PM
Collection Time:
Client Sample ID: 091503-E3-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1248	3,600	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1254	4,700	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1260	1,900	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/15/2011 2:53:00 AM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/15/2011 2:53:00 AM
Surr: Decachlorobiphenyl	149	30-150		%REC	10	2/15/2011 2:53:00 AM

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-21
Collection Date: 2/10/2011 2:52:00 PM
Collection Time:
Client Sample ID: 091503-E3-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1248	8,100	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1254	9,000	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1260	3,300	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/15/2011 3:20:00 AM
Surr: Tetrachloro-m-xylene	71.1	30-150		%REC	10	2/15/2011 3:20:00 AM
Surr: Decachlorobiphenyl	138	30-150		%REC	10	2/15/2011 3:20:00 AM

Lab ID: 1102025-22
Collection Date: 2/10/2011 2:53:00 PM
Collection Time:
Client Sample ID: 091503-E3-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1248	630	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1254	680	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/15/2011 3:46:00 AM
Surr: Tetrachloro-m-xylene	110	30-150		%REC	10	2/15/2011 3:46:00 AM
Surr: Decachlorobiphenyl	121	30-150		%REC	10	2/15/2011 3:46:00 AM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102025
Project: 09150-3 Moran Terminal AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21071** Batch ID: **21071** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/14/11 2:07:00 PM** Prep Date **2/11/11**

Client ID: Run ID: **GC-ELVIS_110214A** SeqNo: **769147**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	19.29	0	µg/Kg	16	0	121	30	150	0			
Surr: Decachlorobiphenyl	19.8	0	µg/Kg	16	0	124	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102025
Project: 09150-3 Moran Terminal AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21072** Batch ID: **21072** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/14/11 3:26:00 PM** Prep Date **2/11/11**

Client ID: Run ID: **GC-ELVIS_110214A** SeqNo: **769150**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1221	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1232	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1242	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1248	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1254	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1260	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1262	ND	50	µg/Kg	0	0	0	0	0	0			
Aroclor 1268	ND	50	µg/Kg	0	0	0	0	0	0			
Surr: Tetrachloro-m-xylene	18.64	0	µg/Kg	16	0	117	30	150	0			
Surr: Decachlorobiphenyl	18.88	0	µg/Kg	16	0	118	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102025
Project: 09150-3 Moran Terminal AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21071** Batch ID: **21071** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/14/11 2:33:00 PM** Prep Date **2/11/11**
Client ID: Run ID: **GC-ELVIS_110214A** SeqNo: **769148**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	965.4	50	µg/Kg	1000	0	96.5	70.9	125	0			
Aroclor 1260	1019	50	µg/Kg	1000	0	102	60.1	126	0			
Surr: Tetrachloro-m-xylene	19.88	0	µg/Kg	16	0	124	30	150	0			
Surr: Decachlorobiphenyl	20.2	0	µg/Kg	16	0	126	30	150	0			

Sample ID **LCSD-21071** Batch ID: **21071** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/14/11 3:00:00 PM** Prep Date **2/11/11**
Client ID: Run ID: **GC-ELVIS_110214A** SeqNo: **769149**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	931	50	µg/Kg	1000	0	93.1	70.9	125	965.4	3.62	50	
Aroclor 1260	1000	50	µg/Kg	1000	0	100	60.1	126	1019	1.92	50	
Surr: Tetrachloro-m-xylene	20.32	0	µg/Kg	16	0	127	30	150	0	0	0	
Surr: Decachlorobiphenyl	20.74	0	µg/Kg	16	0	130	30	150	0	0	0	

Sample ID **LCS-21072** Batch ID: **21072** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/14/11 3:53:00 PM** Prep Date **2/11/11**
Client ID: Run ID: **GC-ELVIS_110214A** SeqNo: **769151**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	949.4	50	µg/Kg	1000	0	94.9	70.9	125	0			
Aroclor 1260	1027	50	µg/Kg	1000	0	103	60.1	126	0			
Surr: Tetrachloro-m-xylene	17.36	0	µg/Kg	16	0	109	30	150	0			
Surr: Decachlorobiphenyl	18.63	0	µg/Kg	16	0	116	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102025
Project: 09150-3 Moran Terminal AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-21072** Batch ID: **21072** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/14/11 4:19:00 PM** Prep Date **2/11/11**

Client ID: Run ID: **GC-ELVIS_110214A** SeqNo: **769152**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	971.8	50	µg/Kg	1000	0	97.2	70.9	125	949.4	2.33	50	
Aroclor 1260	1047	50	µg/Kg	1000	0	105	60.1	126	1027	1.94	50	
Surr: Tetrachloro-m-xylene	17.88	0	µg/Kg	16	0	112	30	150	0	0	0	
Surr: Decachlorobiphenyl	19.15	0	µg/Kg	16	0	120	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-01
Collection Date: 2/10/2011 9:30:00 AM
Collection Time:
Client Sample ID: 091503-P1-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	4.4	0		wt%	1	2/11/2011

Lab ID: 1102025-02
Collection Date: 2/10/2011 9:41:00 AM
Collection Time:
Client Sample ID: 091503-P2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	3.0	0		wt%	1	2/11/2011

Lab ID: 1102025-03
Collection Date: 2/10/2011 9:52:00 AM
Collection Time:
Client Sample ID: 091503-P3-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	8.0	0		wt%	1	2/11/2011

Lab ID: 1102025-04
Collection Date: 2/10/2011 10:21:00 AM
Collection Time:
Client Sample ID: 091503-P4-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	10.9	0		wt%	1	2/11/2011

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-05
Collection Date: 2/10/2011 10:22:00 AM
Collection Time:
Client Sample ID: 091503-P4-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	15.7	0		wt%	1	2/11/2011

Lab ID: 1102025-06
Collection Date: 2/10/2011 10:23:00 AM
Collection Time:
Client Sample ID: 091503-P4-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	21.2	0		wt%	1	2/11/2011

Lab ID: 1102025-07
Collection Date: 2/10/2011 10:43:00 AM
Collection Time:
Client Sample ID: 091503-J3-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	12.2	0		wt%	1	2/11/2011

Lab ID: 1102025-08
Collection Date: 2/10/2011 10:44:00 AM
Collection Time:
Client Sample ID: 091503-J3-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	18.9	0		wt%	1	2/11/2011

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-09
Collection Date: 2/10/2011 11:20:00 AM
Collection Time:
Client Sample ID: 091503-J4-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	10.2	0		wt%	1	2/11/2011

Lab ID: 1102025-10
Collection Date: 2/10/2011 11:21:00 AM
Collection Time:
Client Sample ID: 091503-J4-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	9.9	0		wt%	1	2/11/2011

Lab ID: 1102025-11
Collection Date: 2/10/2011 11:22:00 AM
Collection Time:
Client Sample ID: 091503-J4-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	15.8	0		wt%	1	2/11/2011

Lab ID: 1102025-12
Collection Date: 2/10/2011 11:23:00 AM
Collection Time:
Client Sample ID: 091503-J4-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	19.2	0		wt%	1	2/11/2011

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-13
Collection Date: 2/10/2011 12:05:00 PM
Collection Time:
Client Sample ID: 091503-J2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.0	0		wt%	1	2/11/2011

Lab ID: 1102025-14
Collection Date: 2/10/2011 12:06:00 PM
Collection Time:
Client Sample ID: 091503-J2-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.5	0		wt%	1	2/11/2011

Lab ID: 1102025-15
Collection Date: 2/10/2011 12:18:00 PM
Collection Time:
Client Sample ID: 091503-I2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	12.4	0		wt%	1	2/11/2011

Lab ID: 1102025-16
Collection Date: 2/10/2011 12:19:00 PM
Collection Time:
Client Sample ID: 091503-I2-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.0	0		wt%	1	2/11/2011

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-17
Collection Date: 2/10/2011 12:01:00 PM
Collection Time:
Client Sample ID: 091503-I2-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	8.2	0		wt%	1	2/11/2011

Lab ID: 1102025-18
Collection Date: 2/10/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-J4-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	9.4	0		wt%	1	2/11/2011

Lab ID: 1102025-19
Collection Date: 2/10/2011 2:50:00 PM
Collection Time:
Client Sample ID: 091503-E3-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	9.7	0		wt%	1	2/11/2011

Lab ID: 1102025-20
Collection Date: 2/10/2011 2:51:00 PM
Collection Time:
Client Sample ID: 091503-E3-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	12.8	0		wt%	1	2/11/2011

AMRO Environmental Laboratories Corp.

Date: *17-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal AUL Drilling
Lab Order: 1102025

Lab ID: 1102025-21
Collection Date: 2/10/2011 2:52:00 PM
Collection Time:
Client Sample ID: 091503-E3-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	12.2	0		wt%	1	2/11/2011

Lab ID: 1102025-22
Collection Date: 2/10/2011 2:53:00 PM
Collection Time:
Client Sample ID: 091503-E3-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	9.8	0		wt%	1	2/11/2011

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

February 21, 2011

ANALYTICAL TEST RESULTS

Raymond Siegener
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
TEL: (781) 721-4098
FAX: (781) 721-4073

Subject: 09150-3 Moran Terminal - AUL Drilling Workorder No.: 1102029

Dear Raymond Siegener:

AMRO Environmental Laboratories Corp. received 27 samples on 2/14/2011 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of 39 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001.

Hard copy of the State Certification is available upon request.

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029
Date Received: 2/14/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102029-01A	091503-E5-S1(0-0.5)	2/11/2011	8:04 AM
1102029-02A	091503-F5-S1(0-0.5)	2/11/2011	8:37 AM
1102029-03A	091503-F5-S2(1-3)	2/11/2011	8:38 AM
1102029-04A	091503-F5-S3(3-5)	2/11/2011	8:39 AM
1102029-05A	091503-F5-S4(5-7)	2/11/2011	8:40 AM
1102029-06A	091503-G5-S1(0-0.5)	2/11/2011	9:20 AM
1102029-07A	091503-G5-S2(1-3)	2/11/2011	9:21 AM
1102029-08A	091503-G5-S3(3-5)	2/11/2011	9:22 AM
1102029-09A	091503-G5-S4(5-7)	2/11/2011	9:23 AM
1102029-10A	091503-H5.5-S1(0-0.5)	2/11/2011	10:15 AM
1102029-11A	091503-H5.5-S2(1-3)	2/11/2011	10:16 AM
1102029-12A	091503-H5.5-S3(3-5)	2/11/2011	10:17 AM
1102029-13A	091503-H5.5-S20	2/11/2011	12:01 PM
1102029-14A	091503-H5-S1(0-0.5)	2/11/2011	11:20 AM
1102029-15A	091503-H5-S2(1-3)	2/11/2011	11:21 AM
1102029-16A	091503-H5-S3(3-5)	2/11/2011	11:22 AM
1102029-17A	091503-H5-S4(5-7)	2/11/2011	11:23 AM
1102029-18A	091503-H5-S20	2/11/2011	12:00 PM
1102029-19A	091503-P6-S1(0-0.5)	2/11/2011	12:05 PM
1102029-20A	091503-P5-S1(0-0.5)	2/11/2011	1:39 PM
1102029-21A	091503-P5-S2(1-3)	2/11/2011	1:40 PM
1102029-22A	091503-P5-S3(3-4)	2/11/2011	1:41 PM
1102029-23A	091503-H6-S1(0-0.5)	2/11/2011	1:59 PM
1102029-24A	091503-G6-S1(0-0.5)	2/11/2011	2:10 PM
1102029-25A	091503-G6-S2(1-3)	2/11/2011	2:11 PM
1102029-26A	091503-G6-S3(3-5)	2/11/2011	2:12 PM
1102029-27A	091503-G6-S4(5-7)	2/11/2011	2:13 PM

AMRO Environmental Laboratories Corp.

21-Feb-11

Lab Order: 1102029
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102029-01A	091503-E5-S1(0-0.5)	2/11/2011 8:04:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-02A	091503-F5-S1(0-0.5)	2/11/2011 8:37:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-03A	091503-F5-S2(1-3)	2/11/2011 8:38:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-04A	091503-F5-S3(3-5)	2/11/2011 8:39:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-05A	091503-F5-S4(5-7)	2/11/2011 8:40:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-06A	091503-G5-S1(0-0.5)	2/11/2011 9:20:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	

AMRO Environmental Laboratories Corp.

21-Feb-11

Lab Order: 1102029
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102029-07A	091503-G5-S2(1-3)	2/11/2011 9:21:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-08A	091503-G5-S3(3-5)	2/11/2011 9:22:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-09A	091503-G5-S4(5-7)	2/11/2011 9:23:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-10A	091503-H5.5-S1(0-0.5)	2/11/2011 10:15:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-11A	091503-H5.5-S2(1-3)	2/11/2011 10:16:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-12A	091503-H5.5-S3(3-5)	2/11/2011 10:17:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	

AMRO Environmental Laboratories Corp.

21-Feb-11

Lab Order: 1102029
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102029-13A	091503-H5.5-S20	2/11/2011 12:01:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-14A	091503-H5-S1(0-0.5)	2/11/2011 11:20:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/16/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-15A	091503-H5-S2(1-3)	2/11/2011 11:21:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-16A	091503-H5-S3(3-5)	2/11/2011 11:22:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-17A	091503-H5-S4(5-7)	2/11/2011 11:23:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-18A	091503-H5-S20	2/11/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	

AMRO Environmental Laboratories Corp.

21-Feb-11

Lab Order: 1102029
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102029-19A	091503-P6-S1(0-0.5)	2/11/2011 12:05:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/15/2011	21075	
				Percent Moisture		2/14/2011	
						R46223	
1102029-20A	091503-P5-S1(0-0.5)	2/11/2011 1:39:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	
1102029-21A	091503-P5-S2(1-3)	2/11/2011 1:40:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	
1102029-22A	091503-P5-S3(3-4)	2/11/2011 1:41:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	
1102029-23A	091503-H6-S1(0-0.5)	2/11/2011 1:59:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	
1102029-24A	091503-G6-S1(0-0.5)	2/11/2011 2:10:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	

AMRO Environmental Laboratories Corp.

21-Feb-11

Lab Order: 1102029
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102029-25A	091503-G6-S2(1-3)	2/11/2011 2:11:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	
1102029-26A	091503-G6-S3(3-5)	2/11/2011 2:12:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	
1102029-27A	091503-G6-S4(5-7)	2/11/2011 2:13:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/14/2011	
						R46223	

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102029

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-E5-S1(0-0.5)	2/11/11	0804	SO	1	CMM	x	
	091503-F5-S1(0-0.5)		0837	SO	1	CMM	x	
	091503-F5-S2(1-3)		0838	SO	1	CMM	x	
	091503-F5-S3(3-5)		0839	SO	1	CMM	x	
	091503-F5-S4(5-7)		0840	SO	1	CMM	x	
	091503-G5-S1(0-0.5)		0920	SO	1	CMM	x	
	091503-G5-S2(1-3)		0921	SO	1	CMM	x	
	091503-G5-S3(3-5)		0922	SO	1	CMM	x	
	091503-G5-S4(5-7)		0923	SO	1	CMM	x	
	091503-H5.5-S1(0-0.5)		1015	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagada	2/11/11	1610	1. GEI FRIDGE
2. GEI Fridge	2/14/11	1357	2. Ray Sei
3. Ray Sei	2/14/11	1357	3. [illegible]
4. [illegible]	2/14/11	14:55	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day X 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory:

Laboratory Job # (Lab use only) 1102029

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**	Sample Specific Remarks
	091503- HS-S-S2(1-3)	2/11/11	1016	SO	1	CMM		x	
	091503- HS-S-S3(3-5)		1017	SO	1	CMM		x	
	~~091503- HS-S-S4(5-7)~~			~~SO~~	~~1~~	~~CMM~~		~~x~~	cmm 2/11/11
	091503- HS-S-S20		1201	SO	1	CMM		x	
	091503- HS-S1(0-0.5)		1120	SO	1	CMM		x	
	091503- HS-S2(1-3)		1121	SO	1	CMM		x	
	091503- HS-S3(3-5)		1122	SO	1	CMM		x	
	091503- HS-S4(5-7)		1123	SO	1	CMM		x	
	091503- HS-S20		1200	SO	1	CMM		x	
	091503- PG-S1(0-0.5)		1205.	SO	1	CMM		x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagonda	2/11/11	1610	1. GEI FRIDGE
2. GEI Fridge	2/14/11	1357	2. Ray Seigener
3. Ray Seigener	2/14/11	1357	3. [illegible]
4. [illegible]	2/14/11	14:5[illegible]	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102029

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	PCBs (8082)**	Sample Specific Remarks
	091503- PS-S1(0-0.5)	2/11/11	1339	SO	1	CMM		x	
	091503- PS-S2(1-3)		1340	SO	1	CMM		x	
	091503- PS-S3(3-4)		1341	SO	1	CMM		x	
	091503- HB-S1(0-0.5)		1359	SO	1	CMM		x	
	091503- GB-S1(0-0.5)		1410	SO	1	CMM		x	
	091503- GB-S2(1-3)		1411	SO	1	CMM		x	
	091503- GB-S3(3-5)		1412	SO	1	CMM		x	
	091503- GB-S4(5-7)		1413	SO	1	CMM		x	
	~~091503- GB-S5(7-9)~~			~~SO~~	~~1~~	~~CMM~~		~~x~~	CMM
	~~091503- GB-S6(9-11)~~			~~SO~~	~~1~~	~~CMM~~		~~x~~	CMM

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagnda	2/11/11	1610	1. GEI FRIDGE
Relinquished by: (signature) 2. GEI Fridge	2/14/11	1357	2. Ray Seigener
Relinquished by: (signature) 3. Ray Seigener	2/14/11	1357	3. [illegible]
Relinquished by: (signature) 4. [illegible]	2/14/11	14:55	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

AMRO Environmental Laboratories Corporation

SAMPLE RECEIPT CHECKLIST

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Client: GET
Project Name: Moran Terminal - AUL Drilling
Ship via: (circle one) Fed Ex., UPS, ~~AMRO~~ Courier, Hand Del., Other Courier, Other:

AMRO ID: 1102029
Date Rec.: 2-14-11
Date Due: 2-21-11

Items to be Checked Upon Receipt	Yes	No	NA	Comments
1. Army Samples received in individual plastic bags?			✓	
2. Custody Seals present?			✓	
3. Custody Seals Intact?			✓	
4. Air Bill included in folder if received?			✓	
5. Is COC included with samples?	✓			
6. Is COC signed and dated by client?	✓			
7. Laboratory receipt temperature. TEMP = 2°				
Samples rec. with ice ✓ ice packs___ neither___				
8. Were samples received the same day they were sampled?		✓		
Is client temperature = or <6°C ?	✓			
If no obtain authorization from the client for the analyses.				
Client authorization from: Date: Obtained by:				
9. Is the COC filled out correctly and completely?	✓			
10. Does the info on the COC match the samples?	✓			
11. Were samples rec. within holding time?	✓			
12. Were all samples properly labeled?	✓			
13. Were all samples properly preserved?	✓			
14. Were proper sample containers used?	✓			
15. Were all samples received intact? (none broken or leaking)	✓			
16. Were VOA vials rec. with no air bubbles?			✓	
17. Were the sample volumes sufficient for requested analysis?	✓			
18. Were all samples received?	✓			
19. VPH and VOA Soils only:			✓	
Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)				
Sampling Method VOA (circle one). M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk				
If M or SB:				
Does preservative cover the soil?				
If NO then client must be faxed.				
Does preservation level come close to the fill line on the vial?				
If NO then client must be faxed.				
Were vials provided by AMRO?				
If NO then weights MUST be obtained from client				
Was dry weight aliquot provided?				
If NO then fax client and inform the VOA lab ASAP.				
20. Subcontracted Samples:			✓	
What samples sent:				
Where sent:				
Date:				
Analysis:				
TAT:				
21. Information entered into:				
Internal Tracking Log?	✓			
Dry Weight Log?	✓			
Client Log?			✓	
Composite Log?			✓	
Filtration Log?			✓	

Received By: MM Date: 2-14-11 Logged in By: MM Date: 2-14-11
Labeled By: MM Date: 2-14-11 Checked By: MG Date: 2-15-11

NA= Not Applicable

CASE NARRATIVE

PCBs:

1. The surrogate, Decachlorobiphenyl , recovered above the control limits in the sample , G6-S3(3-5) , (1102029-26), due to sample dilution and high matrix.

MassDEP Analytical Protocol Certification Form

Laboratory Name: AMRO Environmental Lab. Corp. Project #: 09150-3

Project Location: Moran Terminal - AVL Drilling RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
1102029-01 → 27

Matrices: Groundwater/Surface Water Soil/Sediment ✓ Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A ✓	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes (No[1])
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	(Yes) No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] Position: Vice President

Printed Name: Nancy Stewart Date: 2-21-11

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-01
Collection Date: 2/11/2011 8:04:00 AM
Collection Time:
Client Sample ID: 091503-E5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/16/2011 5:52:00 PM
Surr: Tetrachloro-m-xylene	121	30-150		%REC	10	2/16/2011 5:52:00 PM
Surr: Decachlorobiphenyl	114	30-150		%REC	10	2/16/2011 5:52:00 PM

Lab ID: 1102029-02
Collection Date: 2/11/2011 8:37:00 AM
Collection Time:
Client Sample ID: 091503-F5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/16/2011 6:18:00 PM
Surr: Tetrachloro-m-xylene	108	30-150		%REC	10	2/16/2011 6:18:00 PM
Surr: Decachlorobiphenyl	110	30-150		%REC	10	2/16/2011 6:18:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling

Lab Order: 1102029

Lab ID: 1102029-03
Collection Date: 2/11/2011 8:38:00 AM
Collection Time:
Client Sample ID: 091503-F5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1221	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1232	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1242	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1248	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1254	580	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1260	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1262	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Aroclor 1268	ND	480		µg/Kg-dry	10	2/16/2011 6:45:00 PM
Surr: Tetrachloro-m-xylene	99.3	30-150		%REC	10	2/16/2011 6:45:00 PM
Surr: Decachlorobiphenyl	108	30-150		%REC	10	2/16/2011 6:45:00 PM

Lab ID: 1102029-04
Collection Date: 2/11/2011 8:39:00 AM
Collection Time:
Client Sample ID: 091503-F5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1254	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/16/2011 7:11:00 PM
Surr: Tetrachloro-m-xylene	109	30-150		%REC	10	2/16/2011 7:11:00 PM
Surr: Decachlorobiphenyl	100	30-150		%REC	10	2/16/2011 7:11:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-05
Collection Date: 2/11/2011 8:40:00 AM
Collection Time:
Client Sample ID: 091503-F5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1221	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1232	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1242	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1248	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1254	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1260	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1262	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Aroclor 1268	ND	620		µg/Kg-dry	10	2/16/2011 7:37:00 PM
Surr: Tetrachloro-m-xylene	108	30-150		%REC	10	2/16/2011 7:37:00 PM
Surr: Decachlorobiphenyl	110	30-150		%REC	10	2/16/2011 7:37:00 PM

Lab ID: 1102029-06
Collection Date: 2/11/2011 9:20:00 AM
Collection Time:
Client Sample ID: 091503-G5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/16/2011 8:04:00 PM
Surr: Tetrachloro-m-xylene	113	30-150		%REC	10	2/16/2011 8:04:00 PM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/16/2011 8:04:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-07
Collection Date: 2/11/2011 9:21:00 AM
Collection Time:
Client Sample ID: 091503-G5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1221	ND	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1232	ND	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1242	ND	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1248	3,500	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1254	4,000	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1260	1,600	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1262	ND	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Aroclor 1268	ND	600		µg/Kg-dry	10	2/16/2011 8:30:00 PM
Surr: Tetrachloro-m-xylene	84.0	30-150		%REC	10	2/16/2011 8:30:00 PM
Surr: Decachlorobiphenyl	123	30-150		%REC	10	2/16/2011 8:30:00 PM

Lab ID: 1102029-08
Collection Date: 2/11/2011 9:22:00 AM
Collection Time:
Client Sample ID: 091503-G5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1248	2,200	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1254	760	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/16/2011 8:57:00 PM
Surr: Tetrachloro-m-xylene	97.0	30-150		%REC	10	2/16/2011 8:57:00 PM
Surr: Decachlorobiphenyl	103	30-150		%REC	10	2/16/2011 8:57:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-09
Collection Date: 2/11/2011 9:23:00 AM
Collection Time:
Client Sample ID: 091503-G5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1254	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/16/2011 9:23:00 PM
Surr: Tetrachloro-m-xylene	114	30-150		%REC	10	2/16/2011 9:23:00 PM
Surr: Decachlorobiphenyl	106	30-150		%REC	10	2/16/2011 9:23:00 PM

Lab ID: 1102029-10
Collection Date: 2/11/2011 10:15:00 AM
Collection Time:
Client Sample ID: 091503-H5.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1248	670	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1254	990	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1260	1,300	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/16/2011 9:49:00 PM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/16/2011 9:49:00 PM
Surr: Decachlorobiphenyl	105	30-150		%REC	10	2/16/2011 9:49:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-11
Collection Date: 2/11/2011 10:16:00 AM
Collection Time:
Client Sample ID: 091503-H5.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1242	3,000	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1254	3,400	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1260	2,500	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/16/2011 10:16:00 PM
Surr: Tetrachloro-m-xylene	80.4	30-150		%REC	10	2/16/2011 10:16:00 PM
Surr: Decachlorobiphenyl	117	30-150		%REC	10	2/16/2011 10:16:00 PM

Lab ID: 1102029-12
Collection Date: 2/11/2011 10:17:00 AM
Collection Time:
Client Sample ID: 091503-H5.5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1242	2,100	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1254	1,800	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1260	1,200	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/16/2011 10:42:00 PM
Surr: Tetrachloro-m-xylene	87.1	30-150		%REC	10	2/16/2011 10:42:00 PM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/16/2011 10:42:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-13
Collection Date: 2/11/2011 12:01:00 PM
Collection Time:
Client Sample ID: 091503-H5.5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1254	680	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1260	880	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/16/2011 11:08:00 PM
Surr: Tetrachloro-m-xylene	98.6	30-150		%REC	10	2/16/2011 11:08:00 PM
Surr: Decachlorobiphenyl	103	30-150		%REC	10	2/16/2011 11:08:00 PM

Lab ID: 1102029-14
Collection Date: 2/11/2011 11:20:00 AM
Collection Time:
Client Sample ID: 091503-H5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/16/2011 11:35:00 PM
Surr: Tetrachloro-m-xylene	110	30-150		%REC	10	2/16/2011 11:35:00 PM
Surr: Decachlorobiphenyl	99.3	30-150		%REC	10	2/16/2011 11:35:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-15
Collection Date: 2/11/2011 11:21:00 AM
Collection Time:
Client Sample ID: 091503-H5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1221	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1232	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1242	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1248	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1254	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1260	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1262	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Aroclor 1268	ND	630		µg/Kg-dry	10	2/17/2011 12:01:00 AM
Surr: Tetrachloro-m-xylene	90.8	30-150		%REC	10	2/17/2011 12:01:00 AM
Surr: Decachlorobiphenyl	102	30-150		%REC	10	2/17/2011 12:01:00 AM

Lab ID: 1102029-16
Collection Date: 2/11/2011 11:22:00 AM
Collection Time:
Client Sample ID: 091503-H5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/17/2011 12:27:00 AM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/17/2011 12:27:00 AM
Surr: Decachlorobiphenyl	107	30-150		%REC	10	2/17/2011 12:27:00 AM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-17
Collection Date: 2/11/2011 11:23:00 AM
Collection Time:
Client Sample ID: 091503-H5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1221	ND	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1232	ND	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1242	ND	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1248	ND	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1254	1,100	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1260	640	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1262	ND	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Aroclor 1268	ND	630		µg/Kg-dry	10	2/17/2011 12:54:00 AM
Surr: Tetrachloro-m-xylene	99.4	30-150		%REC	10	2/17/2011 12:54:00 AM
Surr: Decachlorobiphenyl	144	30-150		%REC	10	2/17/2011 12:54:00 AM

Lab ID: 1102029-18
Collection Date: 2/11/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-H5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/17/2011 1:20:00 AM
Surr: Tetrachloro-m-xylene	97.1	30-150		%REC	10	2/17/2011 1:20:00 AM
Surr: Decachlorobiphenyl	97.7	30-150		%REC	10	2/17/2011 1:20:00 AM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-19
Collection Date: 2/11/2011 12:05:00 PM
Collection Time:
Client Sample ID: 091503-P6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY-EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/17/2011 1:46:00 AM
Surr: Tetrachloro-m-xylene	109	30-150		%REC	10	2/17/2011 1:46:00 AM
Surr: Decachlorobiphenyl	103	30-150		%REC	10	2/17/2011 1:46:00 AM

Lab ID: 1102029-20
Collection Date: 2/11/2011 1:39:00 PM
Collection Time:
Client Sample ID: 091503-P5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/17/2011 3:33:00 PM
Surr: Tetrachloro-m-xylene	130	30-150		%REC	10	2/17/2011 3:33:00 PM
Surr: Decachlorobiphenyl	132	30-150		%REC	10	2/17/2011 3:33:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-21
Collection Date: 2/11/2011 1:40:00 PM
Collection Time:
Client Sample ID: 091503-P5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/17/2011 3:59:00 PM
Surr: Tetrachloro-m-xylene	122	30-150		%REC	10	2/17/2011 3:59:00 PM
Surr: Decachlorobiphenyl	121	30-150		%REC	10	2/17/2011 3:59:00 PM

Lab ID: 1102029-22
Collection Date: 2/11/2011 1:41:00 PM
Collection Time:
Client Sample ID: 091503-P5-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1248	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1254	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1260	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/17/2011 4:25:00 PM
Surr: Tetrachloro-m-xylene	106	30-150		%REC	10	2/17/2011 4:25:00 PM
Surr: Decachlorobiphenyl	123	30-150		%REC	10	2/17/2011 4:25:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-23
Collection Date: 2/11/2011 1:59:00 PM
Collection Time:
Client Sample ID: 091503-H6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1221	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1232	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1242	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1248	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1254	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1260	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1262	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Aroclor 1268	ND	640		µg/Kg-dry	10	2/17/2011 4:52:00 PM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/17/2011 4:52:00 PM
Surr: Decachlorobiphenyl	124	30-150		%REC	10	2/17/2011 4:52:00 PM

Lab ID: 1102029-24
Collection Date: 2/11/2011 2:10:00 PM
Collection Time:
Client Sample ID: 091503-G6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/17/2011 5:19:00 PM
Surr: Tetrachloro-m-xylene	123	30-150		%REC	10	2/17/2011 5:19:00 PM
Surr: Decachlorobiphenyl	120	30-150		%REC	10	2/17/2011 5:19:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-25
Collection Date: 2/11/2011 2:11:00 PM
Collection Time:
Client Sample ID: 091503-G6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/17/2011 5:45:00 PM
Surr: Tetrachloro-m-xylene	112	30-150		%REC	10	2/17/2011 5:45:00 PM
Surr: Decachlorobiphenyl	123	30-150		%REC	10	2/17/2011 5:45:00 PM

Lab ID: 1102029-26
Collection Date: 2/11/2011 2:12:00 PM
Collection Time:
Client Sample ID: 091503-G6-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1248	2,700	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1254	2,800	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1260	760	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/17/2011 6:12:00 PM
Surr: Tetrachloro-m-xylene	125	30-150		%REC	10	2/17/2011 6:12:00 PM
Surr: Decachlorobiphenyl	316	30-150	S	%REC	10	2/17/2011 6:12:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling

Lab Order: 1102029

Lab ID: 1102029-27

Collection Date: 2/11/2011 2:13:00 PM
Collection Time:

Client Sample ID: 091503-G6-S4(5-7)

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1248	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1254	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/17/2011 6:38:00 PM
Surr: Tetrachloro-m-xylene	111	30-150		%REC	10	2/17/2011 6:38:00 PM
Surr: Decachlorobiphenyl	114	30-150		%REC	10	2/17/2011 6:38:00 PM

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102029
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21075** Batch ID: **21075** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/16/11 12:43:00 PM** Prep Date **2/15/11**

Client ID: Run ID: **GC-ELVIS_110216A** SeqNo: **769258**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	16.43	0	µg/Kg	16	0	103	30	150	0			
Surr: Decachlorobiphenyl	18.31	0	µg/Kg	16	0	114	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102029
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21079** Batch ID: **21079** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 12:54:00 PM** Prep Date **2/17/11**

Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769683**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	18.15	0	µg/Kg	16	0	113	30	150	0			
Surr: Decachlorobiphenyl	19.77	0	µg/Kg	16	0	124	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102029
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21075** Batch ID: **21075** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/16/11 1:09:00 PM** Prep Date **2/15/11**
Client ID: Run ID: **GC-ELVIS_110216A** SeqNo: **769259**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	823	50	µg/Kg	1000	0	82.3	70.9	125	0			
Aroclor 1260	825.9	50	µg/Kg	1000	0	82.6	60.1	126	0			
Surr: Tetrachloro-m-xylene	16.36	0	µg/Kg	16	0	102	30	150	0			
Surr: Decachlorobiphenyl	18	0	µg/Kg	16	0	113	30	150	0			

Sample ID **LCSD-21075** Batch ID: **21075** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/16/11 5:26:00 PM** Prep Date **2/15/11**
Client ID: Run ID: **GC-ELVIS_110216A** SeqNo: **769300**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	547.8	50	µg/Kg	500	0	110	70.9	125	823	40.2	50	
Aroclor 1260	572.3	50	µg/Kg	500	0	114	60.1	126	825.9	36.3	50	
Surr: Tetrachloro-m-xylene	25.92	0	µg/Kg	32	0	81	30	150	0	0	0	
Surr: Decachlorobiphenyl	24.36	0	µg/Kg	32	0	76.1	30	150	0	0	0	

Sample ID **LCS-21079** Batch ID: **21079** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 1:20:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769684**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	926.3	50	µg/Kg	1000	0	92.6	70.9	125	0			
Aroclor 1260	980.6	50	µg/Kg	1000	0	98.1	60.1	126	0			
Surr: Tetrachloro-m-xylene	17.1	0	µg/Kg	16	0	107	30	150	0			
Surr: Decachlorobiphenyl	18.63	0	µg/Kg	16	0	116	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102029
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-21079** Batch ID: **21079** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 1:47:00 PM** Prep Date **2/17/11**

Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769685**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	940.5	50	µg/Kg	1000	0	94	70.9	125	926.3	1.52	50	
Aroclor 1260	1016	50	µg/Kg	1000	0	102	60.1	126	980.6	3.52	50	
Surr: Tetrachloro-m-xylene	19	0	µg/Kg	16	0	119	30	150	0	0	0	
Surr: Decachlorobiphenyl	20.43	0	µg/Kg	16	0	128	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-01
Collection Date: 2/11/2011 8:04:00 AM
Collection Time:
Client Sample ID: 091503-E5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	7.0	0		wt%	1	2/14/2011

Lab ID: 1102029-02
Collection Date: 2/11/2011 8:37:00 AM
Collection Time:
Client Sample ID: 091503-F5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	5.8	0		wt%	1	2/14/2011

Lab ID: 1102029-03
Collection Date: 2/11/2011 8:38:00 AM
Collection Time:
Client Sample ID: 091503-F5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	1.9	0		wt%	1	2/14/2011

Lab ID: 1102029-04
Collection Date: 2/11/2011 8:39:00 AM
Collection Time:
Client Sample ID: 091503-F5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	17.5	0		wt%	1	2/14/2011

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-05
Collection Date: 2/11/2011 8:40:00 AM
Collection Time:
Client Sample ID: 091503-F5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	19.4	0		wt%	1	2/14/2011

Lab ID: 1102029-06
Collection Date: 2/11/2011 9:20:00 AM
Collection Time:
Client Sample ID: 091503-G5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	7.2	0		wt%	1	2/14/2011

Lab ID: 1102029-07
Collection Date: 2/11/2011 9:21:00 AM
Collection Time:
Client Sample ID: 091503-G5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	17.0	0		wt%	1	2/14/2011

Lab ID: 1102029-08
Collection Date: 2/11/2011 9:22:00 AM
Collection Time:
Client Sample ID: 091503-G5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	15.7	0		wt%	1	2/14/2011

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-09
Collection Date: 2/11/2011 9:23:00 AM
Collection Time:
Client Sample ID: 091503-G5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	15.9	0		wt%	1	2/14/2011

Lab ID: 1102029-10
Collection Date: 2/11/2011 10:15:00 AM
Collection Time:
Client Sample ID: 091503-H5.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	7.8	0		wt%	1	2/14/2011

Lab ID: 1102029-11
Collection Date: 2/11/2011 10:16:00 AM
Collection Time:
Client Sample ID: 091503-H5.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	12.6	0		wt%	1	2/14/2011

Lab ID: 1102029-12
Collection Date: 2/11/2011 10:17:00 AM
Collection Time:
Client Sample ID: 091503-H5.5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	12.1	0		wt%	1	2/14/2011

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-13
Collection Date: 2/11/2011 12:01:00 PM
Collection Time:
Client Sample ID: 091503-H5.5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	7.7	0		wt%	1	2/14/2011

Lab ID: 1102029-14
Collection Date: 2/11/2011 11:20:00 AM
Collection Time:
Client Sample ID: 091503-H5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	9.3	0		wt%	1	2/14/2011

Lab ID: 1102029-15
Collection Date: 2/11/2011 11:21:00 AM
Collection Time:
Client Sample ID: 091503-H5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	22.3	0		wt%	1	2/14/2011

Lab ID: 1102029-16
Collection Date: 2/11/2011 11:22:00 AM
Collection Time:
Client Sample ID: 091503-H5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	15.6	0		wt%	1	2/14/2011

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-17
Collection Date: 2/11/2011 11:23:00 AM
Collection Time:
Client Sample ID: 091503-H5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	21.1	0		wt%	1	2/14/2011

Lab ID: 1102029-18
Collection Date: 2/11/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-H5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	17.7	0		wt%	1	2/14/2011

Lab ID: 1102029-19
Collection Date: 2/11/2011 12:05:00 PM
Collection Time:
Client Sample ID: 091503-P6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	8.8	0		wt%	1	2/14/2011

Lab ID: 1102029-20
Collection Date: 2/11/2011 1:39:00 PM
Collection Time:
Client Sample ID: 091503-P5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	7.5	0		wt%	1	2/14/2011

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-21
Collection Date: 2/11/2011 1:40:00 PM
Collection Time:
Client Sample ID: 091503-P5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	8.1	0		wt%	1	2/14/2011

Lab ID: 1102029-22
Collection Date: 2/11/2011 1:41:00 PM
Collection Time:
Client Sample ID: 091503-P5-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	14.0	0		wt%	1	2/14/2011

Lab ID: 1102029-23
Collection Date: 2/11/2011 1:59:00 PM
Collection Time:
Client Sample ID: 091503-H6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	23.5	0		wt%	1	2/14/2011

Lab ID: 1102029-24
Collection Date: 2/11/2011 2:10:00 PM
Collection Time:
Client Sample ID: 091503-G6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	8.5	0		wt%	1	2/14/2011

AMRO Environmental Laboratories Corp.

Date: *21-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102029

Lab ID: 1102029-25
Collection Date: 2/11/2011 2:11:00 PM
Collection Time:
Client Sample ID: 091503-G6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	9.1	0		wt%	1	2/14/2011

Lab ID: 1102029-26
Collection Date: 2/11/2011 2:12:00 PM
Collection Time:
Client Sample ID: 091503-G6-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	15.6	0		wt%	1	2/14/2011

Lab ID: 1102029-27
Collection Date: 2/11/2011 2:13:00 PM
Collection Time:
Client Sample ID: 091503-G6-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	18.8	0		wt%	1	2/14/2011

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

February 28, 2011

ANALYTICAL TEST RESULTS

Raymond Siegener
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
TEL: (781) 721-4098
FAX: (781) 721-4073

Subject: 09150-3 Moran Terminal - AUL Drilling Workorder No.: 1102031

Dear Raymond Siegener:

AMRO Environmental Laboratories Corp. received 65 samples on 2/15/2011 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of 84 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001.

Hard copy of the State Certification is available upon request.

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031
Date Received: 2/15/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102031-01A	091503-F6-S1(0-0.5)	2/14/2011	8:02 AM
1102031-02A	091503-F6-S2(1-3)	2/14/2011	8:03 AM
1102031-03A	091503-F6-S3(3-5)	2/14/2011	8:04 AM
1102031-04A	091503-F6-S4(5-7)	2/14/2011	8:05 AM
1102031-05A	091503-D6-S1(0-0.5)	2/14/2011	8:30 AM
1102031-06A	091503-D6-S2(1-3)	2/14/2011	8:31 AM
1102031-07A	091503-D6-S3(3-3.5)	2/14/2011	8:32 AM
1102031-08A	091503-D6.5-S1(0-0.5)	2/14/2011	8:45 AM
1102031-09A	091503-D6.5-S2(1-3)	2/14/2011	8:46 AM
1102031-10A	091503-D6.5-S3(3-4)	2/14/2011	8:47 AM
1102031-11A	091503-D6.5-S20	2/14/2011	12:00 PM
1102031-12A	091503-P19-S1(0-0.5)	2/14/2011	9:04 AM
1102031-13A	091503-P19-S2(1-3)	2/14/2011	9:05 AM
1102031-14A	091503-P19-S3(3-5)	2/14/2011	9:06 AM
1102031-15A	091503-P19-S4(5-7)	2/14/2011	9:07 AM
1102031-16A	091503-P19-S20	2/14/2011	12:00 PM
1102031-17A	091503-D5-S1(0-0.5)	2/14/2011	9:30 AM
1102031-18A	091503-D5-S2(1-3)	2/14/2011	9:31 AM
1102031-19A	091503-D5-S3(3-5)	2/14/2011	9:32 AM
1102031-20A	091503-D5-S4(5-7)	2/14/2011	9:33 AM
1102031-21A	091503-D7-S1(0-0.5)	2/14/2011	9:51 AM
1102031-22A	091503-D7-S2(1-3)	2/14/2011	9:52 AM
1102031-23A	091503-D7-S3(3-5)	2/14/2011	9:53 AM
1102031-24A	091503-D7-S4(5-7)	2/14/2011	9:54 AM
1102031-25A	091503-E7-S1(0-0.5)	2/14/2011	10:14 AM
1102031-26A	091503-E7-S2(1-3)	2/14/2011	10:15 AM
1102031-27A	091503-E7-S3(3-5)	2/14/2011	10:16 AM
1102031-28A	091503-E7-S4(5-7)	2/14/2011	10:17 AM
1102031-29A	091503-F7-S1(0-0.5)	2/14/2011	10:52 AM
1102031-30A	091503-F7-S2(1-3)	2/14/2011	10:53 AM
1102031-31A	091503-F7-S3(3-4.5)	2/14/2011	10:54 AM
1102031-32A	091503-F7.5-S1(0-0.5)	2/14/2011	11:05 AM
1102031-33A	091503-F7.5-S2(1-3)	2/14/2011	11:06 AM
1102031-34A	091503-F7.5-S3(3-5)	2/14/2011	11:07 AM
1102031-35A	091503-F7.5-S4(5-7)	2/14/2011	11:08 AM

CLIENT:	GEI Consultants, Inc.
Project:	09150-3 Moran Terminal - AUL Drilling
Lab Order:	1102031
Date Received:	2/15/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102031-36A	091503-G7.5-S1(0-0.5)	2/14/2011	11:38 AM
1102031-37A	091503-G7.5-S2(1-3)	2/14/2011	11:39 AM
1102031-38A	091503-G7.5-S3(3-4)	2/14/2011	11:40 AM
1102031-39A	091503-G7-S1(0-0.5)	2/14/2011	12:42 PM
1102031-40A	091503-G7-S2(1-3)	2/14/2011	12:43 PM
1102031-41A	091503-G7-S3(3-5)	2/14/2011	12:44 PM
1102031-42A	091503-G7-S4(5-6)	2/14/2011	12:45 PM
1102031-43A	091503-G7-S20	2/14/2011	12:00 PM
1102031-44A	091503-H7-S1(0-0.5)	2/14/2011	1:01 PM
1102031-45A	091503-H7-S2(1-3)	2/14/2011	1:02 PM
1102031-46A	091503-H7-S3(3-4)	2/14/2011	1:03 PM
1102031-47A	091503-H2-S1(0-0.5)	2/14/2011	1:15 PM
1102031-48A	091503-H2-S2(1-3)	2/14/2011	1:16 PM
1102031-49A	091503-H2-S3(3-5)	2/14/2011	1:17 PM
1102031-50A	091503-H2-S4(5-7)	2/14/2011	1:18 PM
1102031-51A	091503-G2-S1(0-0.5)	2/14/2011	1:50 PM
1102031-52A	091503-G2-S2(1-3)	2/14/2011	1:51 PM
1102031-53A	091503-G2-S20	2/14/2011	12:00 PM
1102031-54A	091503-F2-S1(0-0.5)	2/14/2011	2:01 PM
1102031-55A	091503-F2-S2(1-3)	2/14/2011	2:02 PM
1102031-56A	091503-F2-S20	2/14/2011	12:00 PM
1102031-57A	091503-P11-S1(0-0.5)	2/14/2011	2:21 PM
1102031-58A	091503-P11-S2(1-3)	2/14/2011	2:22 PM
1102031-59A	091503-P11-S3(3-5)	2/14/2011	2:23 PM
1102031-60A	091503-P11-S4(5-7)	2/14/2011	2:24 PM
1102031-61A	091503-P12-S1(0-0.5)	2/14/2011	2:53 PM
1102031-62A	091503-P12-S2(1-3)	2/14/2011	2:54 PM
1102031-63A	091503-P12-S3(3-5)	2/14/2011	2:55 PM
1102031-64A	091503-P12-S20	2/14/2011	12:00 PM
1102031-65A	091503-P12-S4(5-7)	2/14/2011	2:56 PM

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28-Feb-11

Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-01A	091503-F6-S1(0-0.5)	2/14/2011 8:02:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-02A	091503-F6-S2(1-3)	2/14/2011 8:03:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-03A	091503-F6-S3(3-5)	2/14/2011 8:04:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-04A	091503-F6-S4(5-7)	2/14/2011 8:05:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-05A	091503-D6-S1(0-0.5)	2/14/2011 8:30:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-06A	091503-D6-S2(1-3)	2/14/2011 8:31:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	

AMRO Environmental Laboratories Corp.

28-Feb-11

Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-07A	091503-D6-S3(3-3.5)	2/14/2011 8:32:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/17/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-08A	091503-D6.5-S1(0-0.5)	2/14/2011 8:45:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-09A	091503-D6.5-S2(1-3)	2/14/2011 8:46:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-10A	091503-D6.5-S3(3-4)	2/14/2011 8:47:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-11A	091503-D6.5-S20	2/14/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	
1102031-12A	091503-P19-S1(0-0.5)	2/14/2011 9:04:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21079	
				Percent Moisture		2/16/2011	
						R46241	

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-13A	091503-P19-S2(1-3)	2/14/2011 9:05:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-14A	091503-P19-S3(3-5)	2/14/2011 9:06:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-15A	091503-P19-S4(5-7)	2/14/2011 9:07:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-16A	091503-P19-S20	2/14/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-17A	091503-D5-S1(0-0.5)	2/14/2011 9:30:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-18A	091503-D5-S2(1-3)	2/14/2011 9:31:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-19A	091503-D5-S3(3-5)	2/14/2011 9:32:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-20A	091503-D5-S4(5-7)	2/14/2011 9:33:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-21A	091503-D7-S1(0-0.5)	2/14/2011 9:51:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-22A	091503-D7-S2(1-3)	2/14/2011 9:52:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-23A	091503-D7-S3(3-5)	2/14/2011 9:53:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-24A	091503-D7-S4(5-7)	2/14/2011 9:54:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	

AMRO Environmental Laboratories Corp.

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-25A	091503-E7-S1(0-0.5)	2/14/2011 10:14:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-26A	091503-E7-S2(1-3)	2/14/2011 10:15:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/18/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-27A	091503-E7-S3(3-5)	2/14/2011 10:16:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-28A	091503-E7-S4(5-7)	2/14/2011 10:17:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-29A	091503-F7-S1(0-0.5)	2/14/2011 10:52:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-30A	091503-F7-S2(1-3)	2/14/2011 10:53:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-31A	091503-F7-S3(3-4.5)	2/14/2011 10:54:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-32A	091503-F7.5-S1(0-0.5)	2/14/2011 11:05:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21080	
				Percent Moisture		2/16/2011	
						R46241	
1102031-33A	091503-F7.5-S2(1-3)	2/14/2011 11:06:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-34A	091503-F7.5-S3(3-5)	2/14/2011 11:07:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-35A	091503-F7.5-S4(5-7)	2/14/2011 11:08:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-36A	091503-G7.5-S1(0-0.5)	2/14/2011 11:38:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	

AMRO Environmental Laboratories Corp.

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-37A	091503-G7.5-S2(1-3)	2/14/2011 11:39:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-38A	091503-G7.5-S3(3-4)	2/14/2011 11:40:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-39A	091503-G7-S1(0-0.5)	2/14/2011 12:42:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-40A	091503-G7-S2(1-3)	2/14/2011 12:43:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/20/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-41A	091503-G7-S3(3-5)	2/14/2011 12:44:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	
1102031-42A	091503-G7-S4(5-6)	2/14/2011 12:45:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21088	
				Percent Moisture		2/16/2011	
						R46241	

AMRO Environmental Laboratories Corp.

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-43A	091503-G7-S20	2/14/2011 12:00:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-44A	091503-H7-S1(0-0.5)	2/14/2011 1:01:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-45A	091503-H7-S2(1-3)	2/14/2011 1:02:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-46A	091503-H7-S3(3-4)	2/14/2011 1:03:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-47A	091503-H2-S1(0-0.5)	2/14/2011 1:15:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-48A	091503-H2-S2(1-3)	2/14/2011 1:16:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	

AMRO Environmental Laboratories Corp.

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-49A	091503-H2-S3(3-5)	2/14/2011 1:17:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-50A	091503-H2-S4(5-7)	2/14/2011 1:18:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-51A	091503-G2-S1(0-0.5)	2/14/2011 1:50:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-52A	091503-G2-S2(1-3)	2/14/2011 1:51:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/22/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-53A	091503-G2-S20	2/14/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/22/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-54A	091503-F2-S1(0-0.5)	2/14/2011 2:01:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/22/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

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Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-55A	091503-F2-S2(1-3)	2/14/2011 2:02:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/22/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
					2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-56A	091503-F2-S20	2/14/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/22/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-57A	091503-P11-S1(0-0.5)	2/14/2011 2:21:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-58A	091503-P11-S2(1-3)	2/14/2011 2:22:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46241	
1102031-59A	091503-P11-S3(3-5)	2/14/2011 2:23:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011	
						R46242	
1102031-60A	091503-P11-S4(5-7)	2/14/2011 2:24:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	

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Lab Order: 1102031
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102031-60A	091503-P11-S4(5-7)	2/14/2011 2:24:00 PM	Soil	Percent Moisture		2/16/2011 R46242	
1102031-61A	091503-P12-S1(0-0.5)	2/14/2011 2:53:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011 R46242	
1102031-62A	091503-P12-S2(1-3)	2/14/2011 2:54:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/21/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/17/2011	21089	
				Percent Moisture		2/16/2011 R46242	
1102031-63A	091503-P12-S3(3-5)	2/14/2011 2:55:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011 R46242	
1102031-64A	091503-P12-S20	2/14/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011 R46242	
1102031-65A	091503-P12-S4(5-7)	2/14/2011 2:56:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011 R46242	

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102031

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 1 of ~~2~~ 7 cmm

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**								Sample Specific Remarks
	091503-F6-S1(0-0.5)	2/14/11	0802	SO	1	CMM	x								
	091503-F6-S2(1-3)		0803	SO	1	CMM	x								
	091503-F6-S3(3-5)		0804	SO	1	CMM	x								
	091503-F6-S4(5-7)		0805	SO	1	CMM	x								
	091503-~~F6~~ D6-S1(0-0.5)		0830	SO	1	CMM	x								
	091503-~~F6~~ D6-S2(1-3)		0831	SO	1	CMM	x								
	091503-~~F6~~ D6-S3 ~~(3-5)~~ (3-3.5)		0832	SO	1	CMM	x								
	~~091503-F6-S4(5-7)~~		~~0833~~	~~SO~~	~~1~~	~~CMM~~	~~x~~		CMM 2/14/11						
	091503-D6.5-S1(0-0.5)		0845	SO	1	CMM	x								
	091503-D6.5-S2(1-3)		0846	SO	1	CMM	x								

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagada	2/14/11	1630	1. GEI FRIDGE
2. GEI Fridge	2/15/11	1050	2. Ray Seigener
3. Ray Seigener	2/15/11	1050	3. W H Lavan
4. W H Lavan	2/15/11	1150	4. [signature]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day X 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only): 1102031

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-D6-S-S3(3-4)	2/14/11	0847	SO	1	CMM	x	
	091503-D6-S-S20		1200	SO	1	CMM	x	
	091503-P19-S1(0-0.5)		0904	SO	1	CMM	x	
	091503-P19-S2(1-3)		0905	SO	1	CMM	x	
	091503-P19-S3(3-5)		0906	SO	1	CMM	x	
	091503-P19-S4(5-7)		0907	SO	1	CMM	x	
	091503-P19-S20		1200	SO	1	CMM	x	
	091503-D5-S1(0-0.5)		0930	SO	1	CMM	x	
	091503-D5-S2(1-3)		0931	SO	1	CMM	x	
	091503-D5-S3(3-5)		0932	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagnda	2/14/11	1630	1. GEI FRIDGE
2. GEI Fridge	2/15/11	1050	2. Ray Seigener
3. Ray Seigener	2/15/11	1050	3. W. Lawson
4. W. Lawson	2/15/11	1150	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day X 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory:

Laboratory Job # (Lab use only) 1102031

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED → **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Preservative: None

Analysis: PCBs (8082)**

Sample Handling: Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-D5-S4(5-7)	2/14/11	0933	SO	1	CMM	x	
	091503-D7-S1(0-0.5)		0951	SO	1	CMM	x	
	091503-D7-S2(1-3)		0952	SO	1	CMM	x	
	091503-D7-S3(3-5)		0953	SO	1	CMM	x	
	091503-D7-S4(5-7)		0954	SO	1	CMM	x	
	091503-E7-S1(0-0.5)		1014	SO	1	CMM	x	
	091503-E7-S2(1-3)		1015	SO	1	CMM	x	
	091503-E7-S3(3-5)		1016	SO	1	CMM	x	
	091503-E7-S4(5-7)		1017	SO	1	CMM	x	
	091503-F7-S1(0-0.5)		1052	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagnda	2/14/11	1630	1. GEI FRIDGE
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
2. GEI Fridge	2/15/11	1050	2. Ray Seigener
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
3. Ray Seigener	2/15/11	1050	3. W Clawson
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
4. W Clawson	2/15/11	1150	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory:

Laboratory Job # (Lab use only) 1102031

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503- F7-S2(1-3)	2/14/11	1053	SO	1	CMM	x	
	091503- F7-S3(3-4.5)		1054	SO	1	CMM	x	
	091503- F7.5-S1(0-0.5)		1105	SO	1	CMM	x	
	091503- F7.5-S2(1-3)		1106	SO	1	CMM	x	
	091503- F7.5-S3(3-5)		1107	SO	1	CMM	x	
	091503- F7.5-S4(5-7)		1108	SO	1	CMM	x	
	091503- G7.5-S1(0-0.5)		1138	SO	1	CMM	x	
	091503- G7.5-S2(1-3)		1139	SO	1	CMM	x	
	091503- G7.5-S3(3-4)		1140	SO	1	CMM	x	
	091503- G7-S1(0-0.5)		1242	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagonder	2/14/11	1630	1. GEI Fridge
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
2. GEI Fridge	2/15/11	1050	2. Ray Seigener
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
3. Ray Seigener	2/15/11	1050	3. N. Larson
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
4. N. Larson	2/15/11	1150	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory:

Laboratory Job # (Lab use only) 1102031

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**	Sample Specific Remarks
	091503-G7-S2(1-3)	2/14/11	1243	SO	1	CMM		x	
	091503-G7-S3(3-5)		1244	SO	1	CMM		x	
	091503-G7-S4(5-6)		1245	SO	1	CMM		x	
	091503-G7-S20		1200.	SO	1	CMM		x	
	091503-H7-S1(0-0.5)		1301	SO	1	CMM		x	
	091503-H7-S2(1-3)		1302	SO	1	CMM		x	
	091503-H7-S3(3-4)		1303.	SO	1	CMM		x	
	091503-H2-S1(0-0.5)		1315	SO	1	CMM		x	
	091503-H2-S2(1-3)		1316	SO	1	CMM		x	
	091503-H2-S3(3-5)		1317	SO	1	CMM		x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagnda	2/14/11	1630	1. GEI Fridge
2. GEI Fridge	2/15/11	1050	2. Ray Seigener
3. Ray Seigener	2/15/11	1050	3. W H Lawson
4. W H Lawson	2/15/11	1150	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory:

Laboratory Job # (Lab use only) 1102031

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 6 of 7

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-H2-S4(5-7)	2/14/11	1318	SO	1	CMM	x	
	091503-G2-S1(0-0.5)		~~1450~~ 1350 cm	SO	1	CMM	x	
	091503-G2-S2(1-3)		~~1451~~ 1351 cm	SO	1	CMM	x	
	091503-G2-S2a		1200	SO	1	CMM	x	
	091503-F2-S1(0-0.5)		1401	SO	1	CMM	x	
	091503-F2-S2(1-3)		1402	SO	1	CMM	x	
	091503-F2-S2a		1200	SO	1	CMM	x	
	091503-P11-S1(0-0.5)		1421	SO	1	CMM	x	
	091503-P11-S2(1-3)		1422	SO	1	CMM	x	
	091503-P11-S3(3-5)		1423	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagnda	2/14/11	1630	1. GEI FRIDGE
2. GEI Fridge	2/15/11	1050	2. [signature]
3. [signature]	2/15/11	1050	3. [signature]
4. [signature]	2/15/11	1150	4. [signature]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day X 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only): 1102031

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503- P11-S4(5-7)	2/14/11	1424	SO	1	CMM	x	
	091503- P12-S1(0-0.5)		1453	SO	1	CMM	x	
	091503- P12-S2(1-3)		1454	SO	1	CMM	x	
	091503- P12-S3(3-5)		1455	SO	1	CMM	x	
	091503- P12-S2o		1200	SO	1	CMM	x	
	091503- P12-S4(5-7)		1456	SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	
	091503-			SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malaguda	2/14/11	1630	1. GEI FRIDGE
2. GEI Fridge	2/15/11	1050	2. Ray Seigener
3. Ray Seigener	2/15/11	1050	3. [illegible]
4. [illegible]	2/15/11	1150	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

AMRO Environmental Laboratories Corporation

SAMPLE RECEIPT CHECKLIST

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Client: GET
Project Name: 04150-3 MORAN TERMINAL
Ship via: (circle one) Fed Ex., UPS, AMRO Courier, Hand Del., Other Courier, Other:

AMRO ID: 1102031
Date Rec.: 2-15-11
Date Due: 2-22-11

Items to be Checked Upon Receipt	Yes	No	NA	Comments
1. Army Samples received in individual plastic bags?			✓	
2. Custody Seals present?			✓	
3. Custody Seals Intact?			✓	
4. Air Bill included in folder if received?			✓	
5. Is COC included with samples?	✓			
6. Is COC signed and dated by client?	✓			
7. Laboratory receipt temperature. TEMP = 4°				
Samples rec. with ice ✓ ice packs ___ neither ___				
8. Were samples received the same day they were sampled?		✓		
Is client temperature = or <6°C ?	✓			
If no obtain authorization from the client for the analyses.				
Client authorization from: Date: Obtained by:				
9. Is the COC filled out correctly and completely?	✓			
10. Does the info on the COC match the samples?	✓			
11. Were samples rec. within holding time?	✓			
12. Were all samples properly labeled?	✓			
13. Were all samples properly preserved?	✓			
14. Were proper sample containers used?	✓			
15. Were all samples received intact? (none broken or leaking)	✓			
16. Were VOA vials rec. with no air bubbles?			✓	
17. Were the sample volumes sufficient for requested analysis?	✓			
18. Were all samples received?	✓			
19. VPH and VOA Soils only:			✓	
Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)				
Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk				
If M or SB:				
Does preservative cover the soil?				
If NO then client must be faxed.				
Does preservation level come close to the fill line on the vial?				
If NO then client must be faxed.				
Were vials provided by AMRO?				
If NO then weights MUST be obtained from client				
Was dry weight aliquot provided?				
If NO then fax client and inform the VOA lab ASAP.				
20. Subcontracted Samples:			✓	
What samples sent:				
Where sent:				
Date:				
Analysis:				
TAT:				
21. Information entered into:				
Internal Tracking Log?	✓			
Dry Weight Log?	✓			
Client Log?			✓	
Composite Log?			✓	
Filtration Log?			✓	

Received By: MG Date: 2-15-11 Logged in By: MG Date: 2-15-11
Labeled By: MG Date: 2-15-11 Checked By: [illegible] Date: 2-16-11

NA= Not Applicable

CASE NARRATIVE

PCBs:

1. The surrogate, Decachlorobiphenyl , recovered above the control limits in the sample , G2-S2(1-3) (1102031-52), due to sample dilution and high matrix.

2. The surrogates, Tetrachloro-m-xylene and Decachlorobiphenyl , recovered above the control limits in the sample , G2-S20 (1102031-53), due to sample dilution and high matrix.

MassDEP Analytical Protocol Certification Form

Laboratory Name: AMRO Environmental Lab. Corp. Project #: 9150-3

Project Location: Moran Terminal - AVL Drilling RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
1102031 -01 → 65

Matrices: Groundwater/Surface Water Soil/Sediment ✓ Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A ✓	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] Position: Vice President

Printed Name: Nancy Stewart Date: 3-1-11

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-01
Collection Date: 2/14/2011 8:02:00 AM
Collection Time:
Client Sample ID: 091503-F6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/17/2011 7:04:00 PM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/17/2011 7:04:00 PM
Surr: Decachlorobiphenyl	124	30-150		%REC	10	2/17/2011 7:04:00 PM

Lab ID: 1102031-02
Collection Date: 2/14/2011 8:03:00 AM
Collection Time:
Client Sample ID: 091503-F6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1221	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1232	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1242	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1248	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1254	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1260	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1262	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Aroclor 1268	ND	490		µg/Kg-dry	10	2/17/2011 7:31:00 PM
Surr: Tetrachloro-m-xylene	121	30-150		%REC	10	2/17/2011 7:31:00 PM
Surr: Decachlorobiphenyl	120	30-150		%REC	10	2/17/2011 7:31:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-03
Collection Date: 2/14/2011 8:04:00 AM
Collection Time:
Client Sample ID: 091503-F6-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1221	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1232	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1242	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1248	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1254	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1260	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1262	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Aroclor 1268	ND	490		µg/Kg-dry	10	2/17/2011 7:57:00 PM
Surr: Tetrachloro-m-xylene	110	30-150		%REC	10	2/17/2011 7:57:00 PM
Surr: Decachlorobiphenyl	115	30-150		%REC	10	2/17/2011 7:57:00 PM

Lab ID: 1102031-04
Collection Date: 2/14/2011 8:05:00 AM
Collection Time:
Client Sample ID: 091503-F6-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1248	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1254	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/17/2011 8:24:00 PM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/17/2011 8:24:00 PM
Surr: Decachlorobiphenyl	122	30-150		%REC	10	2/17/2011 8:24:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-05
Collection Date: 2/14/2011 8:30:00 AM
Collection Time:
Client Sample ID: 091503-D6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/17/2011 8:50:00 PM
Surr: Tetrachloro-m-xylene	118	30-150		%REC	10	2/17/2011 8:50:00 PM
Surr: Decachlorobiphenyl	122	30-150		%REC	10	2/17/2011 8:50:00 PM

Lab ID: 1102031-06
Collection Date: 2/14/2011 8:31:00 AM
Collection Time:
Client Sample ID: 091503-D6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1221	ND	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1232	ND	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1242	ND	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1248	2,600	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1254	2,400	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1260	870	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1262	ND	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Aroclor 1268	ND	640		µg/Kg-dry	10	2/17/2011 9:16:00 PM
Surr: Tetrachloro-m-xylene	113	30-150		%REC	10	2/17/2011 9:16:00 PM
Surr: Decachlorobiphenyl	143	30-150		%REC	10	2/17/2011 9:16:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-07
Collection Date: 2/14/2011 8:32:00 AM
Collection Time:
Client Sample ID: 091503-D6-S3(3-3.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1248	3,500	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1254	3,100	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1260	1,200	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/17/2011 11:55:00 PM
Surr: Tetrachloro-m-xylene	105	30-150		%REC	10	2/17/2011 11:55:00 PM
Surr: Decachlorobiphenyl	142	30-150		%REC	10	2/17/2011 11:55:00 PM

Lab ID: 1102031-08
Collection Date: 2/14/2011 8:45:00 AM
Collection Time:
Client Sample ID: 091503-D6.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1221	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1232	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1242	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1248	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1254	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1260	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1262	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Aroclor 1268	ND	490		µg/Kg-dry	10	2/18/2011 12:21:00 AM
Surr: Tetrachloro-m-xylene	110	30-150		%REC	10	2/18/2011 12:21:00 AM
Surr: Decachlorobiphenyl	117	30-150		%REC	10	2/18/2011 12:21:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-09
Collection Date: 2/14/2011 8:46:00 AM
Collection Time:
Client Sample ID: 091503-D6.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1221	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1232	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1242	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1248	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1254	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1260	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1262	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Aroclor 1268	ND	490		µg/Kg-dry	10	2/18/2011 12:47:00 AM
Surr: Tetrachloro-m-xylene	119	30-150		%REC	10	2/18/2011 12:47:00 AM
Surr: Decachlorobiphenyl	122	30-150		%REC	10	2/18/2011 12:47:00 AM

Lab ID: 1102031-10
Collection Date: 2/14/2011 8:47:00 AM
Collection Time:
Client Sample ID: 091503-D6.5-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/18/2011 1:14:00 AM
Surr: Tetrachloro-m-xylene	111	30-150		%REC	10	2/18/2011 1:14:00 AM
Surr: Decachlorobiphenyl	146	30-150		%REC	10	2/18/2011 1:14:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-11
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-D6.5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/18/2011 1:40:00 AM
Surr: Tetrachloro-m-xylene	111	30-150		%REC	10	2/18/2011 1:40:00 AM
Surr: Decachlorobiphenyl	139	30-150		%REC	10	2/18/2011 1:40:00 AM

Lab ID: 1102031-12
Collection Date: 2/14/2011 9:04:00 AM
Collection Time:
Client Sample ID: 091503-P19-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/18/2011 2:06:00 AM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/18/2011 2:06:00 AM
Surr: Decachlorobiphenyl	114	30-150		%REC	10	2/18/2011 2:06:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-13
Collection Date: 2/14/2011 9:05:00 AM
Collection Time:
Client Sample ID: 091503-P19-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1248	3,400	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1254	4,300	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1260	1,400	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/18/2011 2:33:00 AM
Surr: Tetrachloro-m-xylene	107	30-150		%REC	10	2/18/2011 2:33:00 AM
Surr: Decachlorobiphenyl	148	30-150		%REC	10	2/18/2011 2:33:00 AM

Lab ID: 1102031-14
Collection Date: 2/14/2011 9:06:00 AM
Collection Time:
Client Sample ID: 091503-P19-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1221	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1232	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1242	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1248	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1254	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1260	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1262	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Aroclor 1268	ND	690		µg/Kg-dry	10	2/18/2011 2:59:00 AM
Surr: Tetrachloro-m-xylene	116	30-150		%REC	10	2/18/2011 2:59:00 AM
Surr: Decachlorobiphenyl	129	30-150		%REC	10	2/18/2011 2:59:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-15
Collection Date: 2/14/2011 9:07:00 AM
Collection Time:
Client Sample ID: 091503-P19-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/18/2011 3:26:00 AM
Surr: Tetrachloro-m-xylene	111	30-150		%REC	10	2/18/2011 3:26:00 AM
Surr: Decachlorobiphenyl	128	30-150		%REC	10	2/18/2011 3:26:00 AM

Lab ID: 1102031-16
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P19-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1221	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1232	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1242	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1248	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1254	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1260	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1262	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Aroclor 1268	ND	660		µg/Kg-dry	10	2/18/2011 3:52:00 AM
Surr: Tetrachloro-m-xylene	115	30-150		%REC	10	2/18/2011 3:52:00 AM
Surr: Decachlorobiphenyl	119	30-150		%REC	10	2/18/2011 3:52:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-17
Collection Date: 2/14/2011 9:30:00 AM
Collection Time:
Client Sample ID: 091503-D5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1248	10,000	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1254	10,000	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1260	4,100	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/18/2011 4:18:00 AM
Surr: Tetrachloro-m-xylene	81.8	30-150		%REC	10	2/18/2011 4:18:00 AM
Surr: Decachlorobiphenyl	150	30-150		%REC	10	2/18/2011 4:18:00 AM

Lab ID: 1102031-18
Collection Date: 2/14/2011 9:31:00 AM
Collection Time:
Client Sample ID: 091503-D5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1221	ND	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1232	ND	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1242	ND	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1248	11,000	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1254	13,000	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1260	5,300	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1262	ND	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Aroclor 1268	ND	640		µg/Kg-dry	10	2/18/2011 4:45:00 AM
Surr: Tetrachloro-m-xylene	87.8	30-150		%REC	10	2/18/2011 4:45:00 AM
Surr: Decachlorobiphenyl	144	30-150		%REC	10	2/18/2011 4:45:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-19
Collection Date: 2/14/2011 9:32:00 AM
Collection Time:
Client Sample ID: 091503-D5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1248	6,300	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1254	9,900	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1260	3,700	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/18/2011 5:11:00 AM
Surr: Tetrachloro-m-xylene	97.1	30-150		%REC	10	2/18/2011 5:11:00 AM
Surr: Decachlorobiphenyl	143	30-150		%REC	10	2/18/2011 5:11:00 AM

Lab ID: 1102031-20
Collection Date: 2/14/2011 9:33:00 AM
Collection Time:
Client Sample ID: 091503-D5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1248	8,000	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1254	14,000	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1260	6,800	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/18/2011 5:37:00 AM
Surr: Tetrachloro-m-xylene	84.0	30-150		%REC	10	2/18/2011 5:37:00 AM
Surr: Decachlorobiphenyl	145	30-150		%REC	10	2/18/2011 5:37:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-21
Collection Date: 2/14/2011 9:51:00 AM
Collection Time:
Client Sample ID: 091503-D7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1248	1,900	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1254	5,200	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1260	2,800	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/18/2011 6:04:00 AM
Surr: Tetrachloro-m-xylene	77.7	30-150		%REC	10	2/18/2011 6:04:00 AM
Surr: Decachlorobiphenyl	101	30-150		%REC	10	2/18/2011 6:04:00 AM

Lab ID: 1102031-22
Collection Date: 2/14/2011 9:52:00 AM
Collection Time:
Client Sample ID: 091503-D7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1248	10,000	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1254	14,000	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1260	9,000	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/18/2011 6:30:00 AM
Surr: Tetrachloro-m-xylene	77.4	30-150		%REC	10	2/18/2011 6:30:00 AM
Surr: Decachlorobiphenyl	133	30-150		%REC	10	2/18/2011 6:30:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-23
Collection Date: 2/14/2011 9:53:00 AM
Collection Time:
Client Sample ID: 091503-D7-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/18/2011 6:57:00 AM
Surr: Tetrachloro-m-xylene	105	30-150		%REC	10	2/18/2011 6:57:00 AM
Surr: Decachlorobiphenyl	105	30-150		%REC	10	2/18/2011 6:57:00 AM

Lab ID: 1102031-24
Collection Date: 2/14/2011 9:54:00 AM
Collection Time:
Client Sample ID: 091503-D7-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1221	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1232	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1242	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1248	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1254	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1260	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1262	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Aroclor 1268	ND	630		µg/Kg-dry	10	2/18/2011 7:23:00 AM
Surr: Tetrachloro-m-xylene	108	30-150		%REC	10	2/18/2011 7:23:00 AM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/18/2011 7:23:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102031-25 **Collection Date:** 2/14/2011 10:14:00 AM
Collection Time:
Client Sample ID: 091503-E7-S1(0-0.5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/18/2011 7:49:00 AM
Surr: Tetrachloro-m-xylene	121	30-150		%REC	10	2/18/2011 7:49:00 AM
Surr: Decachlorobiphenyl	122	30-150		%REC	10	2/18/2011 7:49:00 AM

Lab ID: 1102031-26 **Collection Date:** 2/14/2011 10:15:00 AM
Collection Time:
Client Sample ID: 091503-E7-S2(1-3) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/18/2011 8:16:00 AM
Surr: Tetrachloro-m-xylene	120	30-150		%REC	10	2/18/2011 8:16:00 AM
Surr: Decachlorobiphenyl	122	30-150		%REC	10	2/18/2011 8:16:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-27
Collection Date: 2/14/2011 10:16:00 AM
Collection Time:
Client Sample ID: 091503-E7-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1254	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/20/2011 1:01:00 PM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/20/2011 1:01:00 PM
Surr: Decachlorobiphenyl	143	30-150		%REC	10	2/20/2011 1:01:00 PM

Lab ID: 1102031-28
Collection Date: 2/14/2011 10:17:00 AM
Collection Time:
Client Sample ID: 091503-E7-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1254	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/20/2011 1:28:00 PM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/20/2011 1:28:00 PM
Surr: Decachlorobiphenyl	142	30-150		%REC	10	2/20/2011 1:28:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-29
Collection Date: 2/14/2011 10:52:00 AM
Collection Time:
Client Sample ID: 091503-F7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/20/2011 1:54:00 PM
Surr: Tetrachloro-m-xylene	124	30-150		%REC	10	2/20/2011 1:54:00 PM
Surr: Decachlorobiphenyl	126	30-150		%REC	10	2/20/2011 1:54:00 PM

Lab ID: 1102031-30
Collection Date: 2/14/2011 10:53:00 AM
Collection Time:
Client Sample ID: 091503-F7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1254	840	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/20/2011 2:21:00 PM
Surr: Tetrachloro-m-xylene	121	30-150		%REC	10	2/20/2011 2:21:00 PM
Surr: Decachlorobiphenyl	145	30-150		%REC	10	2/20/2011 2:21:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-31
Collection Date: 2/14/2011 10:54:00 AM
Collection Time:
Client Sample ID: 091503-F7-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1254	15,000	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1260	4,500	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/20/2011 2:47:00 PM
Surr: Tetrachloro-m-xylene	123	30-150		%REC	10	2/20/2011 2:47:00 PM
Surr: Decachlorobiphenyl	143	30-150		%REC	10	2/20/2011 2:47:00 PM

Lab ID: 1102031-32
Collection Date: 2/14/2011 11:05:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/20/2011 3:13:00 PM
Surr: Tetrachloro-m-xylene	121	30-150		%REC	10	2/20/2011 3:13:00 PM
Surr: Decachlorobiphenyl	135	30-150		%REC	10	2/20/2011 3:13:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-33
Collection Date: 2/14/2011 11:06:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1221	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1232	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1242	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1248	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1254	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1260	1,100	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1262	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Aroclor 1268	ND	480		µg/Kg-dry	10	2/20/2011 6:18:00 PM
Surr: Tetrachloro-m-xylene	98.9	30-150		%REC	10	2/20/2011 6:18:00 PM
Surr: Decachlorobiphenyl	106	30-150		%REC	10	2/20/2011 6:18:00 PM

Lab ID: 1102031-34
Collection Date: 2/14/2011 11:07:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1260	7,700	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/20/2011 6:44:00 PM
Surr: Tetrachloro-m-xylene	106	30-150		%REC	10	2/20/2011 6:44:00 PM
Surr: Decachlorobiphenyl	119	30-150		%REC	10	2/20/2011 6:44:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-35
Collection Date: 2/14/2011 11:08:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/20/2011 7:11:00 PM
Surr: Tetrachloro-m-xylene	95.5	30-150		%REC	10	2/20/2011 7:11:00 PM
Surr: Decachlorobiphenyl	104	30-150		%REC	10	2/20/2011 7:11:00 PM

Lab ID: 1102031-36
Collection Date: 2/14/2011 11:38:00 AM
Collection Time:
Client Sample ID: 091503-G7.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/20/2011 7:37:00 PM
Surr: Tetrachloro-m-xylene	123	30-150		%REC	10	2/20/2011 7:37:00 PM
Surr: Decachlorobiphenyl	143	30-150		%REC	10	2/20/2011 7:37:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-37
Collection Date: 2/14/2011 11:39:00 AM
Collection Time:
Client Sample ID: 091503-G7.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1254	3,800	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1260	720	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/20/2011 8:03:00 PM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/20/2011 8:03:00 PM
Surr: Decachlorobiphenyl	146	30-150		%REC	10	2/20/2011 8:03:00 PM

Lab ID: 1102031-38
Collection Date: 2/14/2011 11:40:00 AM
Collection Time:
Client Sample ID: 091503-G7.5-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1248	850	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/20/2011 8:30:00 PM
Surr: Tetrachloro-m-xylene	91.3	30-150		%REC	10	2/20/2011 8:30:00 PM
Surr: Decachlorobiphenyl	112	30-150		%REC	10	2/20/2011 8:30:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-39
Collection Date: 2/14/2011 12:42:00 PM
Collection Time:
Client Sample ID: 091503-G7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1221	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1232	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1242	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1248	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1254	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1260	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1262	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Aroclor 1268	ND	490		µg/Kg-dry	10	2/20/2011 8:56:00 PM
Surr: Tetrachloro-m-xylene	90.8	30-150		%REC	10	2/20/2011 8:56:00 PM
Surr: Decachlorobiphenyl	101	30-150		%REC	10	2/20/2011 8:56:00 PM

Lab ID: 1102031-40
Collection Date: 2/14/2011 12:43:00 PM
Collection Time:
Client Sample ID: 091503-G7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/20/2011 9:22:00 PM
Surr: Tetrachloro-m-xylene	96.1	30-150		%REC	10	2/20/2011 9:22:00 PM
Surr: Decachlorobiphenyl	110	30-150		%REC	10	2/20/2011 9:22:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-41
Collection Date: 2/14/2011 12:44:00 PM
Collection Time:
Client Sample ID: 091503-G7-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/21/2011
Aroclor 1221	ND	540		µg/Kg-dry	10	2/21/2011
Aroclor 1232	ND	540		µg/Kg-dry	10	2/21/2011
Aroclor 1242	ND	540		µg/Kg-dry	10	2/21/2011
Aroclor 1248	3,800	540		µg/Kg-dry	10	2/21/2011
Aroclor 1254	4,300	540		µg/Kg-dry	10	2/21/2011
Aroclor 1260	2,100	540		µg/Kg-dry	10	2/21/2011
Aroclor 1262	ND	540		µg/Kg-dry	10	2/21/2011
Aroclor 1268	ND	540		µg/Kg-dry	10	2/21/2011
Surr: Tetrachloro-m-xylene	64.2	30-150		%REC	10	2/21/2011
Surr: Decachlorobiphenyl	131	30-150		%REC	10	2/21/2011

Lab ID: 1102031-42
Collection Date: 2/14/2011 12:45:00 PM
Collection Time:
Client Sample ID: 091503-G7-S4(5-6)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1248	1,400	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1254	2,000	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1260	770	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/21/2011 12:27:00 AM
Surr: Tetrachloro-m-xylene	84.7	30-150		%REC	10	2/21/2011 12:27:00 AM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/21/2011 12:27:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-43
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-G7-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/21/2011 5:16:00 AM
Surr: Tetrachloro-m-xylene	91.1	30-150		%REC	10	2/21/2011 5:16:00 AM
Surr: Decachlorobiphenyl	104	30-150		%REC	10	2/21/2011 5:16:00 AM

Lab ID: 1102031-44
Collection Date: 2/14/2011 1:01:00 PM
Collection Time:
Client Sample ID: 091503-H7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/21/2011 5:43:00 AM
Surr: Tetrachloro-m-xylene	100	30-150		%REC	10	2/21/2011 5:43:00 AM
Surr: Decachlorobiphenyl	113	30-150		%REC	10	2/21/2011 5:43:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-45
Collection Date: 2/14/2011 1:02:00 PM
Collection Time:
Client Sample ID: 091503-H7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1260	730	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/21/2011 6:09:00 AM
Surr: Tetrachloro-m-xylene	87.6	30-150		%REC	10	2/21/2011 6:09:00 AM
Surr: Decachlorobiphenyl	131	30-150		%REC	10	2/21/2011 6:09:00 AM

Lab ID: 1102031-46
Collection Date: 2/14/2011 1:03:00 PM
Collection Time:
Client Sample ID: 091503-H7-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1248	7,200	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1254	9,900	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1260	3,500	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/21/2011 6:35:00 AM
Surr: Tetrachloro-m-xylene	92.3	30-150		%REC	10	2/21/2011 6:35:00 AM
Surr: Decachlorobiphenyl	144	30-150		%REC	10	2/21/2011 6:35:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-47
Collection Date: 2/14/2011 1:15:00 PM
Collection Time:
Client Sample ID: 091503-H2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1248	630	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1254	2,900	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1260	1,000	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/21/2011 7:02:00 AM
Surr: Tetrachloro-m-xylene	84.6	30-150		%REC	10	2/21/2011 7:02:00 AM
Surr: Decachlorobiphenyl	119	30-150		%REC	10	2/21/2011 7:02:00 AM

Lab ID: 1102031-48
Collection Date: 2/14/2011 1:16:00 PM
Collection Time:
Client Sample ID: 091503-H2-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1248	4,300	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1254	4,300	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1260	1,600	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/21/2011 7:28:00 AM
Surr: Tetrachloro-m-xylene	89.1	30-150		%REC	10	2/21/2011 7:28:00 AM
Surr: Decachlorobiphenyl	132	30-150		%REC	10	2/21/2011 7:28:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-49
Collection Date: 2/14/2011 1:17:00 PM
Collection Time:
Client Sample ID: 091503-H2-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/21/2011 7:54:00 AM
Surr: Tetrachloro-m-xylene	99.8	30-150		%REC	10	2/21/2011 7:54:00 AM
Surr: Decachlorobiphenyl	94.9	30-150		%REC	10	2/21/2011 7:54:00 AM

Lab ID: 1102031-50
Collection Date: 2/14/2011 1:18:00 PM
Collection Time:
Client Sample ID: 091503-H2-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1254	800	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/21/2011 8:21:00 AM
Surr: Tetrachloro-m-xylene	98.9	30-150		%REC	10	2/21/2011 8:21:00 AM
Surr: Decachlorobiphenyl	136	30-150		%REC	10	2/21/2011 8:21:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-51
Collection Date: 2/14/2011 1:50:00 PM
Collection Time:
Client Sample ID: 091503-G2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/21/2011 11:32:00 AM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/21/2011 11:32:00 AM
Surr: Decachlorobiphenyl	142	30-150		%REC	10	2/21/2011 11:32:00 AM

Lab ID: 1102031-52
Collection Date: 2/14/2011 1:51:00 PM
Collection Time:
Client Sample ID: 091503-G2-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1221	ND	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1232	ND	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1242	ND	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1248	44,000	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1254	42,000	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1260	14,000	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1262	ND	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Aroclor 1268	ND	3,700		µg/Kg-dry	50	2/22/2011 1:38:00 AM
Surr: Tetrachloro-m-xylene	138	30-150		%REC	50	2/22/2011 1:38:00 AM
Surr: Decachlorobiphenyl	220	30-150	S	%REC	50	2/22/2011 1:38:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-53
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-G2-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1221	ND	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1232	ND	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1242	ND	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1248	27,000	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1254	27,000	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1260	10,000	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1262	ND	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Aroclor 1268	ND	3,300		µg/Kg-dry	50	2/22/2011 2:04:00 AM
Surr: Tetrachloro-m-xylene	162	30-150	S	%REC	50	2/22/2011 2:04:00 AM
Surr: Decachlorobiphenyl	362	30-150	S	%REC	50	2/22/2011 2:04:00 AM

Lab ID: 1102031-54
Collection Date: 2/14/2011 2:01:00 PM
Collection Time:
Client Sample ID: 091503-F2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/22/2011 12:45:00 AM
Surr: Tetrachloro-m-xylene	81.3	30-150		%REC	10	2/22/2011 12:45:00 AM
Surr: Decachlorobiphenyl	96.3	30-150		%REC	10	2/22/2011 12:45:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-55
Collection Date: 2/14/2011 2:02:00 PM
Collection Time:
Client Sample ID: 091503-F2-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Aroclor 1248	17,000	2,700		µg/Kg-dry	50	2/22/2011 2:31:00 AM
Aroclor 1254	15,000	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Aroclor 1260	2,900	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/21/2011 1:19:00 PM
Surr: Tetrachloro-m-xylene	85.3	30-150		%REC	10	2/21/2011 1:19:00 PM
Surr: Decachlorobiphenyl	110	30-150		%REC	10	2/21/2011 1:19:00 PM

Lab ID: 1102031-56
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-F2-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/22/2011 1:12:00 AM
Surr: Tetrachloro-m-xylene	87.1	30-150		%REC	10	2/22/2011 1:12:00 AM
Surr: Decachlorobiphenyl	83.3	30-150		%REC	10	2/22/2011 1:12:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-57
Collection Date: 2/14/2011 2:21:00 PM
Collection Time:
Client Sample ID: 091503-P11-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/21/2011 2:12:00 PM
Surr: Tetrachloro-m-xylene	109	30-150		%REC	10	2/21/2011 2:12:00 PM
Surr: Decachlorobiphenyl	122	30-150		%REC	10	2/21/2011 2:12:00 PM

Lab ID: 1102031-58
Collection Date: 2/14/2011 2:22:00 PM
Collection Time:
Client Sample ID: 091503-P11-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/21/2011 2:38:00 PM
Surr: Tetrachloro-m-xylene	112	30-150		%REC	10	2/21/2011 2:38:00 PM
Surr: Decachlorobiphenyl	135	30-150		%REC	10	2/21/2011 2:38:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-59
Collection Date: 2/14/2011 2:23:00 PM
Collection Time:
Client Sample ID: 091503-P11-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/21/2011 3:04:00 PM
Surr: Tetrachloro-m-xylene	92.5	30-150		%REC	10	2/21/2011 3:04:00 PM
Surr: Decachlorobiphenyl	112	30-150		%REC	10	2/21/2011 3:04:00 PM

Lab ID: 1102031-60
Collection Date: 2/14/2011 2:24:00 PM
Collection Time:
Client Sample ID: 091503-P11-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/21/2011 3:31:00 PM
Surr: Tetrachloro-m-xylene	99.3	30-150		%REC	10	2/21/2011 3:31:00 PM
Surr: Decachlorobiphenyl	102	30-150		%REC	10	2/21/2011 3:31:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-61
Collection Date: 2/14/2011 2:53:00 PM
Collection Time:
Client Sample ID: 091503-P12-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/21/2011 3:57:00 PM
Surr: Tetrachloro-m-xylene	81.6	30-150		%REC	10	2/21/2011 3:57:00 PM
Surr: Decachlorobiphenyl	111	30-150		%REC	10	2/21/2011 3:57:00 PM

Lab ID: 1102031-62
Collection Date: 2/14/2011 2:54:00 PM
Collection Time:
Client Sample ID: 091503-P12-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/21/2011 4:24:00 PM
Surr: Tetrachloro-m-xylene	90.9	30-150		%REC	10	2/21/2011 4:24:00 PM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/21/2011 4:24:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-63
Collection Date: 2/14/2011 2:55:00 PM
Collection Time:
Client Sample ID: 091503-P12-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1221	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1232	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1242	5,500	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1248	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1254	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1260	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1262	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Aroclor 1268	ND	620		µg/Kg-dry	10	2/23/2011 12:38:00 PM
Surr: Tetrachloro-m-xylene	89.3	30-150		%REC	10	2/23/2011 12:38:00 PM
Surr: Decachlorobiphenyl	87.5	30-150		%REC	10	2/23/2011 12:38:00 PM

Lab ID: 1102031-64
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P12-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1248	3,800	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1254	6,000	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1260	1,800	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/23/2011 1:04:00 PM
Surr: Tetrachloro-m-xylene	90.7	30-150		%REC	10	2/23/2011 1:04:00 PM
Surr: Decachlorobiphenyl	132	30-150		%REC	10	2/23/2011 1:04:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling

Lab Order: 1102031

Lab ID: 1102031-65

Collection Date: 2/14/2011 2:56:00 PM
Collection Time:

Client Sample ID: 091503-P12-S4(5-7)

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/23/2011 1:31:00 PM
Surr: Tetrachloro-m-xylene	92.4	30-150		%REC	10	2/23/2011 1:31:00 PM
Surr: Decachlorobiphenyl	84.6	30-150		%REC	10	2/23/2011 1:31:00 PM

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21079** Batch ID: **21079** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 12:54:00 PM** Prep Date **2/17/11**

Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769683**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	18.15	0	µg/Kg	16	0	113	30	150	0			
Surr: Decachlorobiphenyl	19.77	0	µg/Kg	16	0	124	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21080** Batch ID: **21080** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 2:13:00 PM** Prep Date **2/17/11**

Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769686**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	18.13	0	µg/Kg	16	0	113	30	150	0			
Surr: Decachlorobiphenyl	19.44	0	µg/Kg	16	0	122	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21088** Batch ID: **21088** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/20/11 3:40:00 PM** Prep Date **2/17/11**

Client ID: Run ID: **GC-ELVIS_110220A** SeqNo: **769991**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	16.81	0	µg/Kg	16	0	105	30	150	0			
Surr: Decachlorobiphenyl	17.82	0	µg/Kg	16	0	111	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21089** Batch ID: **21089** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/20/11 4:59:00 PM** Prep Date **2/17/11**

Client ID: Run ID: **GC-ELVIS_110220A** SeqNo: **769994**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	17.53	0	µg/Kg	16	0	110	30	150	0			
Surr: Decachlorobiphenyl	19.62	0	µg/Kg	16	0	123	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21101** Batch ID: **21101** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 11:18:00 AM** Prep Date **2/21/11**

Client ID: Run ID: **GC-ELVIS_110222A** SeqNo: **770508**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	16.91	0	µg/Kg	16	0	106	30	150	0			
Surr: Decachlorobiphenyl	15.32	0	µg/Kg	16	0	95.8	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21079** Batch ID: **21079** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 1:20:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769684**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	926.3	50	µg/Kg	1000	0	92.6	70.9	125	0			
Aroclor 1260	980.6	50	µg/Kg	1000	0	98.1	60.1	126	0			
Surr: Tetrachloro-m-xylene	17.1	0	µg/Kg	16	0	107	30	150	0			
Surr: Decachlorobiphenyl	18.63	0	µg/Kg	16	0	116	30	150	0			

Sample ID **LCSD-21079** Batch ID: **21079** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 1:47:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769685**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	940.5	50	µg/Kg	1000	0	94	70.9	125	926.3	1.52	50	
Aroclor 1260	1016	50	µg/Kg	1000	0	102	60.1	126	980.6	3.52	50	
Surr: Tetrachloro-m-xylene	19	0	µg/Kg	16	0	119	30	150	0	0	0	
Surr: Decachlorobiphenyl	20.43	0	µg/Kg	16	0	128	30	150	0	0	0	

Sample ID **LCS-21080** Batch ID: **21080** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 2:40:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769687**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	910.1	50	µg/Kg	1000	0	91	70.9	125	0			
Aroclor 1260	978.7	50	µg/Kg	1000	0	97.9	60.1	126	0			
Surr: Tetrachloro-m-xylene	17.5	0	µg/Kg	16	0	109	30	150	0			
Surr: Decachlorobiphenyl	19	0	µg/Kg	16	0	119	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit, defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-21080** Batch ID: **21080** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/17/11 3:06:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110217A** SeqNo: **769688**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	829.8	50	µg/Kg	1000	0	83	70.9	125	910.1	9.22	50	
Aroclor 1260	879.2	50	µg/Kg	1000	0	87.9	60.1	126	978.7	10.7	50	
Surr: Tetrachloro-m-xylene	17.57	0	µg/Kg	16	0	110	30	150	0	0	0	
Surr: Decachlorobiphenyl	19.11	0	µg/Kg	16	0	119	30	150	0	0	0	

Sample ID **LCS-21088** Batch ID: **21088** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/20/11 4:06:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110220A** SeqNo: **769992**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	1139	50	µg/Kg	1000	0	114	70.9	125	0			
Aroclor 1260	1175	50	µg/Kg	1000	0	118	60.1	126	0			
Surr: Tetrachloro-m-xylene	17.77	0	µg/Kg	16	0	111	30	150	0			
Surr: Decachlorobiphenyl	19.5	0	µg/Kg	16	0	122	30	150	0			

Sample ID **LCSD-21088** Batch ID: **21088** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/20/11 4:33:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110220A** SeqNo: **769993**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	1121	50	µg/Kg	1000	0	112	70.9	125	1139	1.59	50	
Aroclor 1260	1153	50	µg/Kg	1000	0	115	60.1	126	1175	1.9	50	
Surr: Tetrachloro-m-xylene	17.5	0	µg/Kg	16	0	109	30	150	0	0	0	
Surr: Decachlorobiphenyl	19.32	0	µg/Kg	16	0	121	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits; NA - Not applicable where J values or ND results occur; RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21089** Batch ID: **21089** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/20/11 5:25:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110220A** SeqNo: **769995**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	1144	50	µg/Kg	1000	0	114	70.9	125	0			
Aroclor 1260	1189	50	µg/Kg	1000	0	119	60.1	126	0			
Surr: Tetrachloro-m-xylene	16.72	0	µg/Kg	16	0	104	30	150	0			
Surr: Decachlorobiphenyl	18.53	0	µg/Kg	16	0	116	30	150	0			

Sample ID **LCSD-21089** Batch ID: **21089** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/20/11 5:52:00 PM** Prep Date **2/17/11**
Client ID: Run ID: **GC-ELVIS_110220A** SeqNo: **769996**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	1141	50	µg/Kg	1000	0	114	70.9	125	1144	0.269	50	
Aroclor 1260	1185	50	µg/Kg	1000	0	119	60.1	126	1189	0.308	50	
Surr: Tetrachloro-m-xylene	17.36	0	µg/Kg	16	0	109	30	150	0	0	0	
Surr: Decachlorobiphenyl	19.08	0	µg/Kg	16	0	119	30	150	0	0	0	

Sample ID **LCS-21101** Batch ID: **21101** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 11:45:00 AM** Prep Date **2/21/11**
Client ID: Run ID: **GC-ELVIS_110222A** SeqNo: **770721**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	926.5	50	µg/Kg	1000	0	92.7	70.9	125	0			
Aroclor 1260	984.4	50	µg/Kg	1000	0	98.4	60.1	126	0			
Surr: Tetrachloro-m-xylene	15.86	0	µg/Kg	16	0	99.1	30	150	0			
Surr: Decachlorobiphenyl	15.62	0	µg/Kg	16	0	97.6	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits; NA - Not applicable where J values or ND results occur; RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *23-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-21101** Batch ID: **21101** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 12:11:00 PM** Prep Date **2/21/11**

Client ID: Run ID: **GC-ELVIS_110222A** SeqNo: **770722**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	906.1	50	µg/Kg	1000	0	90.6	70.9	125	926.5	2.22	50	
Aroclor 1260	928.8	50	µg/Kg	1000	0	92.9	60.1	126	984.4	5.82	50	
Surr: Tetrachloro-m-xylene	15.18	0	µg/Kg	16	0	94.8	30	150	0	0	0	
Surr: Decachlorobiphenyl	14.84	0	µg/Kg	16	0	92.7	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-01
Collection Date: 2/14/2011 8:02:00 AM
Collection Time:
Client Sample ID: 091503-F6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.8	0		wt%	1	2/16/2011

Lab ID: 1102031-02
Collection Date: 2/14/2011 8:03:00 AM
Collection Time:
Client Sample ID: 091503-F6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	3.7	0		wt%	1	2/16/2011

Lab ID: 1102031-03
Collection Date: 2/14/2011 8:04:00 AM
Collection Time:
Client Sample ID: 091503-F6-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.2	0		wt%	1	2/16/2011

Lab ID: 1102031-04
Collection Date: 2/14/2011 8:05:00 AM
Collection Time:
Client Sample ID: 091503-F6-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	18.7	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-05
Collection Date: 2/14/2011 8:30:00 AM
Collection Time:
Client Sample ID: 091503-D6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.7	0		wt%	1	2/16/2011

Lab ID: 1102031-06
Collection Date: 2/14/2011 8:31:00 AM
Collection Time:
Client Sample ID: 091503-D6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	22.0	0		wt%	1	2/16/2011

Lab ID: 1102031-07
Collection Date: 2/14/2011 8:32:00 AM
Collection Time:
Client Sample ID: 091503-D6-S3(3-3.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.1	0		wt%	1	2/16/2011

Lab ID: 1102031-08
Collection Date: 2/14/2011 8:45:00 AM
Collection Time:
Client Sample ID: 091503-D6.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.3	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-09
Collection Date: 2/14/2011 8:46:00 AM
Collection Time:
Client Sample ID: 091503-D6.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	4.4	0		wt%	1	2/16/2011

Lab ID: 1102031-10
Collection Date: 2/14/2011 8:47:00 AM
Collection Time:
Client Sample ID: 091503-D6.5-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.2	0		wt%	1	2/16/2011

Lab ID: 1102031-11
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-D6.5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.7	0		wt%	1	2/16/2011

Lab ID: 1102031-12
Collection Date: 2/14/2011 9:04:00 AM
Collection Time:
Client Sample ID: 091503-P19-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.6	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-13
Collection Date: 2/14/2011 9:05:00 AM
Collection Time:
Client Sample ID: 091503-P19-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.8	0		wt%	1	2/16/2011

Lab ID: 1102031-14
Collection Date: 2/14/2011 9:06:00 AM
Collection Time:
Client Sample ID: 091503-P19-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	32.0	0		wt%	1	2/16/2011

Lab ID: 1102031-15
Collection Date: 2/14/2011 9:07:00 AM
Collection Time:
Client Sample ID: 091503-P19-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.0	0		wt%	1	2/16/2011

Lab ID: 1102031-16
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P19-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	27.4	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-17
Collection Date: 2/14/2011 9:30:00 AM
Collection Time:
Client Sample ID: 091503-D5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.8	0		wt%	1	2/16/2011

Lab ID: 1102031-18
Collection Date: 2/14/2011 9:31:00 AM
Collection Time:
Client Sample ID: 091503-D5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	26.4	0		wt%	1	2/16/2011

Lab ID: 1102031-19
Collection Date: 2/14/2011 9:32:00 AM
Collection Time:
Client Sample ID: 091503-D5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.5	0		wt%	1	2/16/2011

Lab ID: 1102031-20
Collection Date: 2/14/2011 9:33:00 AM
Collection Time:
Client Sample ID: 091503-D5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	20.6	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-21
Collection Date: 2/14/2011 9:51:00 AM
Collection Time:
Client Sample ID: 091503-D7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.1	0		wt%	1	2/16/2011

Lab ID: 1102031-22
Collection Date: 2/14/2011 9:52:00 AM
Collection Time:
Client Sample ID: 091503-D7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.1	0		wt%	1	2/16/2011

Lab ID: 1102031-23
Collection Date: 2/14/2011 9:53:00 AM
Collection Time:
Client Sample ID: 091503-D7-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.8	0		wt%	1	2/16/2011

Lab ID: 1102031-24
Collection Date: 2/14/2011 9:54:00 AM
Collection Time:
Client Sample ID: 091503-D7-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	25.9	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-25
Collection Date: 2/14/2011 10:14:00 AM
Collection Time:
Client Sample ID: 091503-E7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	5.0	0		wt%	1	2/16/2011

Lab ID: 1102031-26
Collection Date: 2/14/2011 10:15:00 AM
Collection Time:
Client Sample ID: 091503-E7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	3.4	0		wt%	1	2/16/2011

Lab ID: 1102031-27
Collection Date: 2/14/2011 10:16:00 AM
Collection Time:
Client Sample ID: 091503-E7-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.0	0		wt%	1	2/16/2011

Lab ID: 1102031-28
Collection Date: 2/14/2011 10:17:00 AM
Collection Time:
Client Sample ID: 091503-E7-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	21.6	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-29
Collection Date: 2/14/2011 10:52:00 AM
Collection Time:
Client Sample ID: 091503-F7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.2	0		wt%	1	2/16/2011

Lab ID: 1102031-30
Collection Date: 2/14/2011 10:53:00 AM
Collection Time:
Client Sample ID: 091503-F7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	18.2	0		wt%	1	2/16/2011

Lab ID: 1102031-31
Collection Date: 2/14/2011 10:54:00 AM
Collection Time:
Client Sample ID: 091503-F7-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.3	0		wt%	1	2/16/2011

Lab ID: 1102031-32
Collection Date: 2/14/2011 11:05:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.7	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-33
Collection Date: 2/14/2011 11:06:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	5.7	0		wt%	1	2/16/2011

Lab ID: 1102031-34
Collection Date: 2/14/2011 11:07:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	19.6	0		wt%	1	2/16/2011

Lab ID: 1102031-35
Collection Date: 2/14/2011 11:08:00 AM
Collection Time:
Client Sample ID: 091503-F7.5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.9	0		wt%	1	2/16/2011

Lab ID: 1102031-36
Collection Date: 2/14/2011 11:38:00 AM
Collection Time:
Client Sample ID: 091503-G7.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	5.7	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-37
Collection Date: 2/14/2011 11:39:00 AM
Collection Time:
Client Sample ID: 091503-G7.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.0	0		wt%	1	2/16/2011

Lab ID: 1102031-38
Collection Date: 2/14/2011 11:40:00 AM
Collection Time:
Client Sample ID: 091503-G7.5-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.1	0		wt%	1	2/16/2011

Lab ID: 1102031-39
Collection Date: 2/14/2011 12:42:00 PM
Collection Time:
Client Sample ID: 091503-G7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	5.4	0		wt%	1	2/16/2011

Lab ID: 1102031-40
Collection Date: 2/14/2011 12:43:00 PM
Collection Time:
Client Sample ID: 091503-G7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.2	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-41
Collection Date: 2/14/2011 12:44:00 PM
Collection Time:
Client Sample ID: 091503-G7-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.0	0		wt%	1	2/16/2011

Lab ID: 1102031-42
Collection Date: 2/14/2011 12:45:00 PM
Collection Time:
Client Sample ID: 091503-G7-S4(5-6)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	19.4	0		wt%	1	2/16/2011

Lab ID: 1102031-43
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-G7-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.0	0		wt%	1	2/16/2011

Lab ID: 1102031-44
Collection Date: 2/14/2011 1:01:00 PM
Collection Time:
Client Sample ID: 091503-H7-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	4.7	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-45
Collection Date: 2/14/2011 1:02:00 PM
Collection Time:
Client Sample ID: 091503-H7-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	9.2	0		wt%	1	2/16/2011

Lab ID: 1102031-46
Collection Date: 2/14/2011 1:03:00 PM
Collection Time:
Client Sample ID: 091503-H7-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.8	0		wt%	1	2/16/2011

Lab ID: 1102031-47
Collection Date: 2/14/2011 1:15:00 PM
Collection Time:
Client Sample ID: 091503-H2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	9.7	0		wt%	1	2/16/2011

Lab ID: 1102031-48
Collection Date: 2/14/2011 1:16:00 PM
Collection Time:
Client Sample ID: 091503-H2-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.3	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-49
Collection Date: 2/14/2011 1:17:00 PM
Collection Time:
Client Sample ID: 091503-H2-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.2	0		wt%	1	2/16/2011

Lab ID: 1102031-50
Collection Date: 2/14/2011 1:18:00 PM
Collection Time:
Client Sample ID: 091503-H2-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	19.8	0		wt%	1	2/16/2011

Lab ID: 1102031-51
Collection Date: 2/14/2011 1:50:00 PM
Collection Time:
Client Sample ID: 091503-G2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.7	0		wt%	1	2/16/2011

Lab ID: 1102031-52
Collection Date: 2/14/2011 1:51:00 PM
Collection Time:
Client Sample ID: 091503-G2-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	36.7	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-53
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-G2-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	30.0	0		wt%	1	2/16/2011

Lab ID: 1102031-54
Collection Date: 2/14/2011 2:01:00 PM
Collection Time:
Client Sample ID: 091503-F2-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.0	0		wt%	1	2/16/2011

Lab ID: 1102031-55
Collection Date: 2/14/2011 2:02:00 PM
Collection Time:
Client Sample ID: 091503-F2-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.5	0		wt%	1	2/16/2011

Lab ID: 1102031-56
Collection Date: 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-F2-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.1	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-57
Collection Date: 2/14/2011 2:21:00 PM
Collection Time:
Client Sample ID: 091503-P11-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.9	0		wt%	1	2/16/2011

Lab ID: 1102031-58
Collection Date: 2/14/2011 2:22:00 PM
Collection Time:
Client Sample ID: 091503-P11-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.7	0		wt%	1	2/16/2011

Lab ID: 1102031-59
Collection Date: 2/14/2011 2:23:00 PM
Collection Time:
Client Sample ID: 091503-P11-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	5.1	0		wt%	1	2/16/2011

Lab ID: 1102031-60
Collection Date: 2/14/2011 2:24:00 PM
Collection Time:
Client Sample ID: 091503-P11-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.2	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102031
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102031-61 **Collection Date:** 2/14/2011 2:53:00 PM
Collection Time:
Client Sample ID: 091503-P12-S1(0-0.5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.1	0		wt%	1	2/16/2011

Lab ID: 1102031-62 **Collection Date:** 2/14/2011 2:54:00 PM
Collection Time:
Client Sample ID: 091503-P12-S2(1-3) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.7	0		wt%	1	2/16/2011

Lab ID: 1102031-63 **Collection Date:** 2/14/2011 2:55:00 PM
Collection Time:
Client Sample ID: 091503-P12-S3(3-5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	22.7	0		wt%	1	2/16/2011

Lab ID: 1102031-64 **Collection Date:** 2/14/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P12-S20 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	9.1	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102031

Lab ID: 1102031-65
Collection Date: 2/14/2011 2:56:00 PM
Collection Time:
Client Sample ID: 091503-P12-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	17.3	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corporation

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February 28, 2011

ANALYTICAL TEST RESULTS

Raymond Siegener
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
TEL: (781) 721-4098
FAX: (781) 721-4073

Subject: 09150-3 Moran Terminal - AUL Drilling

Workorder No.: 1102036

Dear Raymond Siegener:

AMRO Environmental Laboratories Corp. received 47 samples on 2/16/2011 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of 61 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001.

Hard copy of the State Certification is available upon request.

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036
Date Received: 2/16/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102036-01A	091503-E4-S1(0-0.5)	2/15/2011	8:04 AM
1102036-02A	091503-E4-S2(1-3)	2/15/2011	8:05 AM
1102036-03A	091503-E4-S3(3-4)	2/15/2011	8:06 AM
1102036-04A	091503-P22-S1(0-0.5)	2/15/2011	8:23 AM
1102036-05A	091503-P22-S2(1-3)	2/15/2011	8:24 AM
1102036-06A	091503-P22-S3(3-5)	2/15/2011	8:25 AM
1102036-07A	091503-P22-S4(5-7)	2/15/2011	8:26 AM
1102036-08A	091503-P22-S20	2/15/2011	12:00 PM
1102036-09A	091503-P21-S1(0-0.5)	2/15/2011	8:47 AM
1102036-10A	091503-P21-S2(1-3)	2/15/2011	8:48 AM
1102036-11A	091503-P21-S3(3-5)	2/15/2011	8:49 AM
1102036-12A	091503-P21-S4(5-7)	2/15/2011	8:50 AM
1102036-13A	091503-P14-S1(0-0.5)	2/15/2011	9:13 AM
1102036-14A	091503-P14-S2(1-3)	2/15/2011	9:14 AM
1102036-15A	091503-P14-S3(3-4)	2/15/2011	9:15 AM
1102036-16A	091503-E6-S1(0-0.5)	2/15/2011	10:25 AM
1102036-17A	091503-E6-S2(1-3)	2/15/2011	10:26 AM
1102036-18A	091503-E6-S3(3-5)	2/15/2011	10:27 AM
1102036-19A	091503-E6-S4(5-7)	2/15/2011	10:28 AM
1102036-20A	091503-H7.5-S1(0-0.5)	2/15/2011	10:51 AM
1102036-21A	091503-H7.5-S2(1-3)	2/15/2011	10:52 AM
1102036-22A	091503-H7.5-S3(3-5)	2/15/2011	10:53 AM
1102036-23A	091503-H7.5-S4(5-7)	2/15/2011	10:54 AM
1102036-24A	091503-H7.5-S20	2/15/2011	12:00 PM
1102036-25A	091503-H6.5-S1(0-0.5)	2/15/2011	11:23 AM
1102036-26A	091503-H6.5-S2(1-2.5)	2/15/2011	11:24 AM
1102036-27A	091503-D8-S1(0-0.5)	2/15/2011	11:47 AM
1102036-28A	091503-D8-S2(1-3)	2/15/2011	11:48 AM
1102036-29A	091503-D8-S3(3-5)	2/15/2011	11:49 AM
1102036-30A	091503-D8-S4(5-7)	2/15/2011	11:50 AM
1102036-31A	091503-CD9-S1(0-0.5)	2/15/2011	1:21 PM
1102036-32A	091503-CD9-S2(1-3)	2/15/2011	1:22 PM
1102036-33A	091503-CD9-S3(3-5)	2/15/2011	1:23 PM
1102036-34A	091503-CD9-S4(5-7)	2/15/2011	1:24 PM
1102036-35A	091503-E9-S1(0-0.5)	2/15/2011	2:05 PM

CLIENT:	GEI Consultants, Inc.
Project:	09150-3 Moran Terminal - AUL Drilling
Lab Order:	1102036
Date Received:	2/16/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102036-36A	091503-E9-S2(1-3)	2/15/2011	2:06 PM
1102036-37A	091503-E9-S3(3-5)	2/15/2011	2:07 PM
1102036-38A	091503-E9-S4(5-7)	2/15/2011	2:08 PM
1102036-39A	091503-E9-S20	2/15/2011	12:00 PM
1102036-40A	091503-P10-S1(0-0.5)	2/15/2011	2:27 PM
1102036-41A	091503-P10-S2(1-3)	2/15/2011	2:28 PM
1102036-42A	091503-E8-S1(0-0.5)	2/15/2011	2:42 PM
1102036-43A	091503-E8-S2(1-3)	2/15/2011	2:43 PM
1102036-44A	091503-E8-S3(3-5)	2/15/2011	2:44 PM
1102036-45A	091503-E8-S4(5-7)	2/15/2011	2:45 PM
1102036-46A	091503-EF9-S1(0-0.5)	2/15/2011	3:48 PM
1102036-47A	091503-EF9-S2(1-3)	2/15/2011	3:49 PM

AMRO Environmental Laboratories Corp.

28-Feb-11

Lab Order: 1102036
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-01A	091503-E4-S1(0-0.5)	2/15/2011 8:04:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-02A	091503-E4-S2(1-3)	2/15/2011 8:05:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-03A	091503-E4-S3(3-4)	2/15/2011 8:06:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-04A	091503-P22-S1(0-0.5)	2/15/2011 8:23:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-05A	091503-P22-S2(1-3)	2/15/2011 8:24:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-06A	091503-P22-S3(3-5)	2/15/2011 8:25:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	

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28-Feb-11

Lab Order: 1102036
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-07A	091503-P22-S4(5-7)	2/15/2011 8:26:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-08A	091503-P22-S20	2/15/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-09A	091503-P21-S1(0-0.5)	2/15/2011 8:47:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-10A	091503-P21-S2(1-3)	2/15/2011 8:48:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/23/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-11A	091503-P21-S3(3-5)	2/15/2011 8:49:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	
1102036-12A	091503-P21-S4(5-7)	2/15/2011 8:50:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21101	
				Percent Moisture		2/16/2011	
						R46242	

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Lab Order: 1102036
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-13A	091503-P14-S1(0-0.5)	2/15/2011 9:13:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-14A	091503-P14-S2(1-3)	2/15/2011 9:14:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-15A	091503-P14-S3(3-4)	2/15/2011 9:15:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-16A	091503-E6-S1(0-0.5)	2/15/2011 10:25:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-17A	091503-E6-S2(1-3)	2/15/2011 10:26:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
					2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-18A	091503-E6-S3(3-5)	2/15/2011 10:27:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	

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Lab Order: 1102036
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Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-18A	091503-E6-S3(3-5)	2/15/2011 10:27:00 AM	Soil	Percent Moisture		2/16/2011 R46242	
1102036-19A	091503-E6-S4(5-7)	2/15/2011 10:28:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-20A	091503-H7.5-S1(0-0.5)	2/15/2011 10:51:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-21A	091503-H7.5-S2(1-3)	2/15/2011 10:52:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-22A	091503-H7.5-S3(3-5)	2/15/2011 10:53:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-23A	091503-H7.5-S4(5-7)	2/15/2011 10:54:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-24A	091503-H7.5-S20	2/15/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	

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Lab Order: 1102036
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DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-24A	091503-H7.5-S20	2/15/2011 12:00:00 PM	Soil	Percent Moisture		2/16/2011 R46242	
1102036-25A	091503-H6.5-S1(0-0.5)	2/15/2011 11:23:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-26A	091503-H6.5-S2(1-2.5)	2/15/2011 11:24:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-27A	091503-D8-S1(0-0.5)	2/15/2011 11:47:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-28A	091503-D8-S2(1-3)	2/15/2011 11:48:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
					2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	
1102036-29A	091503-D8-S3(3-5)	2/15/2011 11:49:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011 R46242	

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28-Feb-11

Lab Order: 1102036
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-30A	091503-D8-S4(5-7)	2/15/2011 11:50:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-31A	091503-CD9-S1(0-0.5)	2/15/2011 1:21:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-32A	091503-CD9-S2(1-3)	2/15/2011 1:22:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/21/2011	21102	
				Percent Moisture		2/16/2011	
						R46242	
1102036-33A	091503-CD9-S3(3-5)	2/15/2011 1:23:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-34A	091503-CD9-S4(5-7)	2/15/2011 1:24:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-35A	091503-E9-S1(0-0.5)	2/15/2011 2:05:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	

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28-Feb-11

Lab Order: 1102036
Client: GEI Consultants, Inc.
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DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-36A	091503-E9-S2(1-3)	2/15/2011 2:06:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-37A	091503-E9-S3(3-5)	2/15/2011 2:07:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-38A	091503-E9-S4(5-7)	2/15/2011 2:08:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-39A	091503-E9-S20	2/15/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-40A	091503-P10-S1(0-0.5)	2/15/2011 2:27:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-41A	091503-P10-S2(1-3)	2/15/2011 2:28:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	

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28-Feb-11

Lab Order: 1102036
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102036-42A	091503-E8-S1(0-0.5)	2/15/2011 2:42:00 PM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-43A	091503-E8-S2(1-3)	2/15/2011 2:43:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
					2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-44A	091503-E8-S3(3-5)	2/15/2011 2:44:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-45A	091503-E8-S4(5-7)	2/15/2011 2:45:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-46A	091503-EF9-S1(0-0.5)	2/15/2011 3:48:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/16/2011	
						R46242	
1102036-47A	091503-EF9-S2(1-3)	2/15/2011 3:49:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	

AMRO Environmental Laboratories Corp.

28-Feb-11

Lab Order: 1102036
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name Preparatory Test Name	Prep Date	Analysis Date Batch ID	TCLP Date
1102036-47A	091503-EF9-S2(1-3)	2/15/2011 3:49:00 PM	Soil	Percent Moisture		2/16/2011 R46242	

Chain-of-Custody Record

Laboratory: AMRO.

Laboratory Job # (Lab use only) 1102036

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**	Sample Specific Remarks
	091503-E1-S1(0-0.5)	2/15/11	0804	SO	1	CMM		x	
	091503-E1-S2(1-3)		0805	SO	1	CMM		x	
	091503-E1-S3(3-4)		0806	SO	1	CMM		x	
	091503-P22-S1(0-0.5)		0823	SO	1	CMM		x	
	091503-P22-S2(1-3)		0824	SO	1	CMM		x	
	091503-P22-S3(3-5)		0825	SO	1	CMM		x	
	091503-P22-S4(5-7)		0826	SO	1	CMM		x	
	091503-P22-S20		1200	SO	1	CMM		x	
	091503-P21-S1(0-0.5)		0817	SO	1	CMM		x	
	091503-P21-S2(1-3)		0816	SO	1	CMM		x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date	Time	Received by: (signature)
1. C Malagnda	2/15/11	1655	1. GEI FRIDGE
2. GEI Fridge	2/16/11	1035	2. Ray Sig
3. Ray Sig	2/16/11	1035	3. N H Larsen
4. N H Larsen	2/16/11	1200	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102036

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Page 2 of 5

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-P21-S3(3-5)	2/15/11	0849 ~~0851~~	SO	1	CMM	x	
	091503-P21-S4(5-7)		0850 ~~0851~~	SO	1	CMM	x	
	091503-P14-S1(0-0.5)		0913	SO	1	CMM	x	
	091503-P14-S2(1-3)		0914	SO	1	CMM	x	
	091503-P14-S3(3-7)		0915	SO	1	CMM	x	
	091503-E6-S1(0-0.5)		1025	SO	1	CMM	x	
	091503-E6-S2(1-3)		1026	SO	1	CMM	x	
	091503-E6-S3(3-5)		1027	SO	1	CMM	x	
	091503-E6-S4(5-7)		1028	SO	1	CMM	x	
	091503-H7.5-S1(0-0.5)		1051	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagnda	2/15/11	1655	1. GEI FRIDGE
2. GEI Fridge	2/16/11	1035	2. Ray Seigener
3. Ray Seigener	2/16/11	1035	3. W H Lawson
4. W H Lawson	2/16/11	1200	4. [signature]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only) 1102036

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 3 of 5

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED -- **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**	Sample Specific Remarks
	091503- H7.5-S2(1-3)	2/15/11	1052	SO	1	CMM		x	
	091503- H7.5-S3(3-5)		1053	SO	1	CMM		x	
	091503- H7.5-S4(5-7)		1054	SO	1	CMM		x	
	091503- H7.5-S20		1200	SO	1	CMM		x	
	091503- H6.5-S1(0-0.5)		1123	SO	1	CMM		x	
	091503- H6.5-S2(1-2.5)		1124	SO	1	CMM		x	
	091503- DE-S1(0-0.5)		1147	SO	1	CMM		x	
	091503- DE-S2(1-3)		1148	SO	1	CMM		x	
	091503- DE-S3(3-5)		1149	SO	1	CMM		x	
	091503- DE-S4(5-7)		1150	SO	1	CMM		x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagonda	2/15/11	1655	1. GEI FRIDGE
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
2. GEI Fridge	2/16/11	1035	2. Ray Seigener
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
3. Ray Seigener	2/16/11	1035	3. [illegible]
Relinquished by: (signature)	Date:	Time:	Received by: (signature)
4. [illegible]	2/16/11	2100	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only): 1102036

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-CD9-S1(0-0.5)	2/15/11	1321	SO	1	CMM	x	
	091503-CD9-S2(1-3)		1322	SO	1	CMM	x	
	091503-CD9-S3(3-5)		1323	SO	1	CMM	x	
	091503-CD9-S4(5-7)		1324	SO	1	CMM	x	
	091503-E9-S1(0-0.5)		1405	SO	1	CMM	x	
	091503-E9-S2(1-3)		1406	SO	1	CMM	x	
	091503-E9-S3(3-5)		1407	SO	1	CMM	x	
	091503-E9-S4(5-7)		1408	SO	1	CMM	x	
	091503-E9-S20		1200	SO	1	CMM	x	
	091503-P10-S1(0-0.5)		1427	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date	Time	Received by: (signature)
1. C. Malagnda	2/15/11 ~~1655~~	1655	1. GEI FRIDGE
2. GEI Fridge	2/16/11	1035	2. Ray Seigener
3. Ray Seigener	2/16/11	1035	3. M. Lawson
4. M. Lawson	2/16/11	1200	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory:

Laboratory Job # (Lab use only) 1102036

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 5 of 5

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED - **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Preservative: None

Analysis: PCBs (8082)**

Sample Handling: Samples Field Filtered YES NO **NA**

Sampled Shipped With Ice **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**								Sample Specific Remarks
	091503-P10-S2(1-3)	2/15/11	1425	SO	1	CMM	x								
	091503-EE-S1(0-0.5)		1492	SO	1	CMM	x								
	091503-EE-S2(1-3)		1493	SO	1	CMM	x								
	091503-EE-S3(3-5)		1494	SO	1	CMM	x								
	091503-EE-S4(5-7)		1495	SO	1	CMM	x								
	091503-EE9-S1(0-0.5)		1548	SO	1	CMM	x								
	091503-EE9-S2(1-3).		1549.	SO	1	CMM	x								
	~~091503~~			~~SO~~	~~1~~	~~CMM~~	~~x~~	CMM							
	091503-			~~SO~~	~~1~~	~~CMM~~	~~x~~	CMM							
	~~091503~~			~~SO~~	~~1~~	~~CMM~~	~~x~~	CMM							

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagnda	2/15/11	1655	1. GEI FRIDGE
2. GEI Fridge	2/16/11	1035	2. Ray Sei
3. Ray Sei	2/16/11	1035	3. [illegible]
4. [illegible]	2/16/11	1200	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day X 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

AMRO Environmental Laboratories Corporation

SAMPLE RECEIPT CHECKLIST

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Client:	GEI	AMRO ID:	1102036
Project Name:	MORAN TERMINAL - AUL DRILLING	Date Rec.:	2-16-11
Ship via: (circle one) Fed Ex., UPS, ~~AMRO Courier,~~ Hand Del., Other Courier, Other:		Date Due:	2-23-11

Items to be Checked Upon Receipt	Yes	No	NA	Comments
1. Army Samples received in individual plastic bags?			✓	
2. Custody Seals present?			✓	
3. Custody Seals Intact?			✓	
4. Air Bill included in folder if received?			✓	
5. Is COC included with samples?	✓			
6. Is COC signed and dated by client?	✓			
7. Laboratory receipt temperature. TEMP = 40				
Samples rec. with ice ✓ ice packs ___ neither ___				
8. Were samples received the same day they were sampled?		✓		
Is client temperature = or <6°C ?	✓			
If no obtain authorization from the client for the analyses.				
Client authorization from: Date: Obtained by:				
9. Is the COC filled out correctly and completely?	✓			
10. Does the info on the COC match the samples?	✓			
11. Were samples rec. within holding time?	✓			
12. Were all samples properly labeled?	✓			
13. Were all samples properly preserved?	✓			
14. Were proper sample containers used?	✓			
15. Were all samples received intact? (none broken or leaking)	✓			
16. Were VOA vials rec. with no air bubbles?			✓	
17. Were the sample volumes sufficient for requested analysis?	✓			
18. Were all samples received?	✓			
19. VPH and VOA Soils only:			✓	
Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)				
Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk				
If M or SB:				
Does preservative cover the soil?				
If NO then client must be faxed.				
Does preservation level come close to the fill line on the vial?				
If NO then client must be faxed.				
Were vials provided by AMRO?			–	
If NO then weights MUST be obtained from client				
Was dry weight aliquot provided?				
If NO then fax client and inform the VOA lab ASAP.				
20. Subcontracted Samples:			✓	
What samples sent:				
Where sent:				
Date:				
Analysis:				
TAT:				
21. Information entered into:				
Internal Tracking Log?	✓			
Dry Weight Log?	✓		✗ MG 2-16-11	
Client Log?			✓	
Composite Log?			✓	
Filtration Log?			✓	

Received By: MG	Date: 2-16-11	Logged in By: MG	Date: 2-16-11
Labeled By: MG	Date: 2-16-11	Checked By: [illegible]	Date: 2-16-11

NA= Not Applicable

CASE NARRATIVE

PCBs:

1. The surrogate, Decachlorobiphenyl , recovered above the control limits in the sample , E9-S3(3-5) (1102036-37), due to sample dilution and high matrix.

MassDEP Analytical Protocol Certification Form

Laboratory Name: AMRO Environmental Lab. Corp. Project #: 09150-3

Project Location: Moran Terminal - AVL Drilling RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
1102036-01 → 47

Matrices: Groundwater/Surface Water Soil/Sediment ✓ Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A ✓	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] Position: Vice President

Printed Name: Nancy Stewart Date: 3-1-11

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-01
Collection Date: 2/15/2011 8:04:00 AM
Collection Time:
Client Sample ID: 091503-E4-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/23/2011 7:43:00 PM
Surr: Tetrachloro-m-xylene	96.6	30-150		%REC	10	2/23/2011 7:43:00 PM
Surr: Decachlorobiphenyl	95.8	30-150		%REC	10	2/23/2011 7:43:00 PM

Lab ID: 1102036-02
Collection Date: 2/15/2011 8:05:00 AM
Collection Time:
Client Sample ID: 091503-E4-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/23/2011 8:09:00 PM
Surr: Tetrachloro-m-xylene	98.6	30-150		%REC	10	2/23/2011 8:09:00 PM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/23/2011 8:09:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-03
Collection Date: 2/15/2011 8:06:00 AM
Collection Time:
Client Sample ID: 091503-E4-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1248	4,400	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1254	9,400	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1260	4,100	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/23/2011 8:36:00 PM
Surr: Tetrachloro-m-xylene	90.0	30-150		%REC	10	2/23/2011 8:36:00 PM
Surr: Decachlorobiphenyl	140	30-150		%REC	10	2/23/2011 8:36:00 PM

Lab ID: 1102036-04
Collection Date: 2/15/2011 8:23:00 AM
Collection Time:
Client Sample ID: 091503-P22-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/23/2011 9:02:00 PM
Surr: Tetrachloro-m-xylene	92.2	30-150		%REC	10	2/23/2011 9:02:00 PM
Surr: Decachlorobiphenyl	95.0	30-150		%REC	10	2/23/2011 9:02:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-05
Collection Date: 2/15/2011 8:24:00 AM
Collection Time:
Client Sample ID: 091503-P22-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1248	940	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1254	1,900	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1260	ND	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/23/2011 9:29:00 PM
Surr: Tetrachloro-m-xylene	99.6	30-150		%REC	10	2/23/2011 9:29:00 PM
Surr: Decachlorobiphenyl	97.6	30-150		%REC	10	2/23/2011 9:29:00 PM

Lab ID: 1102036-06
Collection Date: 2/15/2011 8:25:00 AM
Collection Time:
Client Sample ID: 091503-P22-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1248	3,100	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1254	2,400	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1260	930	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/23/2011 9:55:00 PM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/23/2011 9:55:00 PM
Surr: Decachlorobiphenyl	116	30-150		%REC	10	2/23/2011 9:55:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-07
Collection Date: 2/15/2011 8:26:00 AM
Collection Time:
Client Sample ID: 091503-P22-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1248	1,200	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1254	3,100	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/23/2011 10:21:00 PM
Surr: Tetrachloro-m-xylene	98.7	30-150		%REC	10	2/23/2011 10:21:00 PM
Surr: Decachlorobiphenyl	105	30-150		%REC	10	2/23/2011 10:21:00 PM

Lab ID: 1102036-08
Collection Date: 2/15/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P22-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/23/2011 10:48:00 PM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/23/2011 10:48:00 PM
Surr: Decachlorobiphenyl	93.2	30-150		%REC	10	2/23/2011 10:48:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-09
Collection Date: 2/15/2011 8:47:00 AM
Collection Time:
Client Sample ID: 091503-P21-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/23/2011 11:14:00 PM
Surr: Tetrachloro-m-xylene	98.8	30-150		%REC	10	2/23/2011 11:14:00 PM
Surr: Decachlorobiphenyl	93.7	30-150		%REC	10	2/23/2011 11:14:00 PM

Lab ID: 1102036-10
Collection Date: 2/15/2011 8:48:00 AM
Collection Time:
Client Sample ID: 091503-P21-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/23/2011 11:40:00 PM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/23/2011 11:40:00 PM
Surr: Decachlorobiphenyl	96.7	30-150		%REC	10	2/23/2011 11:40:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-11
Collection Date: 2/15/2011 8:49:00 AM
Collection Time:
Client Sample ID: 091503-P21-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1254	610	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/24/2011 12:07:00 AM
Surr: Tetrachloro-m-xylene	116	30-150		%REC	10	2/24/2011 12:07:00 AM
Surr: Decachlorobiphenyl	98.1	30-150		%REC	10	2/24/2011 12:07:00 AM

Lab ID: 1102036-12
Collection Date: 2/15/2011 8:50:00 AM
Collection Time:
Client Sample ID: 091503-P21-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/24/2011 12:33:00 AM
Surr: Tetrachloro-m-xylene	106	30-150		%REC	10	2/24/2011 12:33:00 AM
Surr: Decachlorobiphenyl	93.5	30-150		%REC	10	2/24/2011 12:33:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-13
Collection Date: 2/15/2011 9:13:00 AM
Collection Time:
Client Sample ID: 091503-P14-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/24/2011 1:00:00 AM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/24/2011 1:00:00 AM
Surr: Decachlorobiphenyl	96.8	30-150		%REC	10	2/24/2011 1:00:00 AM

Lab ID: 1102036-14
Collection Date: 2/15/2011 9:14:00 AM
Collection Time:
Client Sample ID: 091503-P14-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/24/2011 1:26:00 AM
Surr: Tetrachloro-m-xylene	99.4	30-150		%REC	10	2/24/2011 1:26:00 AM
Surr: Decachlorobiphenyl	90.8	30-150		%REC	10	2/24/2011 1:26:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-15
Collection Date: 2/15/2011 9:15:00 AM
Collection Time:
Client Sample ID: 091503-P14-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1248	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1254	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1260	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/24/2011 4:30:00 AM
Surr: Tetrachloro-m-xylene	99.8	30-150		%REC	10	2/24/2011 4:30:00 AM
Surr: Decachlorobiphenyl	93.8	30-150		%REC	10	2/24/2011 4:30:00 AM

Lab ID: 1102036-16
Collection Date: 2/15/2011 10:25:00 AM
Collection Time:
Client Sample ID: 091503-E6-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1221	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1232	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1242	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1248	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1254	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1260	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1262	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Aroclor 1268	ND	660		µg/Kg-dry	10	2/24/2011 4:56:00 AM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/24/2011 4:56:00 AM
Surr: Decachlorobiphenyl	89.6	30-150		%REC	10	2/24/2011 4:56:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-17
Collection Date: 2/15/2011 10:26:00 AM
Collection Time:
Client Sample ID: 091503-E6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Aroclor 1248	9,600	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Aroclor 1254	20,000	1,200		µg/Kg-dry	20	2/24/2011 2:45:00 PM
Aroclor 1260	7,300	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/24/2011 5:22:00 AM
Surr: Tetrachloro-m-xylene	95.1	30-150		%REC	20	2/24/2011 2:45:00 PM
Surr: Tetrachloro-m-xylene	89.6	30-150		%REC	10	2/24/2011 5:22:00 AM
Surr: Decachlorobiphenyl	129	30-150		%REC	20	2/24/2011 2:45:00 PM
Surr: Decachlorobiphenyl	142	30-150		%REC	10	2/24/2011 5:22:00 AM

Lab ID: 1102036-18
Collection Date: 2/15/2011 10:27:00 AM
Collection Time:
Client Sample ID: 091503-E6-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/24/2011 5:49:00 AM
Surr: Tetrachloro-m-xylene	93.4	30-150		%REC	10	2/24/2011 5:49:00 AM
Surr: Decachlorobiphenyl	89.6	30-150		%REC	10	2/24/2011 5:49:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-19
Collection Date: 2/15/2011 10:28:00 AM
Collection Time:
Client Sample ID: 091503-E6-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1254	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/24/2011 6:15:00 AM
Surr: Tetrachloro-m-xylene	99.6	30-150		%REC	10	2/24/2011 6:15:00 AM
Surr: Decachlorobiphenyl	85.6	30-150		%REC	10	2/24/2011 6:15:00 AM

Lab ID: 1102036-20
Collection Date: 2/15/2011 10:51:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/24/2011 6:41:00 AM
Surr: Tetrachloro-m-xylene	97.1	30-150		%REC	10	2/24/2011 6:41:00 AM
Surr: Decachlorobiphenyl	87.0	30-150		%REC	10	2/24/2011 6:41:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102036
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102036-21 **Collection Date:** 2/15/2011 10:52:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S2(1-3) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/24/2011 7:07:00 AM
Surr: Tetrachloro-m-xylene	107	30-150		%REC	10	2/24/2011 7:07:00 AM
Surr: Decachlorobiphenyl	105	30-150		%REC	10	2/24/2011 7:07:00 AM

Lab ID: 1102036-22 **Collection Date:** 2/15/2011 10:53:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S3(3-5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1248	3,300	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1254	5,000	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1260	1,900	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/24/2011 7:34:00 AM
Surr: Tetrachloro-m-xylene	114	30-150		%REC	10	2/24/2011 7:34:00 AM
Surr: Decachlorobiphenyl	119	30-150		%REC	10	2/24/2011 7:34:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-23
Collection Date: 2/15/2011 10:54:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1248	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1254	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/24/2011 8:00:00 AM
Surr: Tetrachloro-m-xylene	89.3	30-150		%REC	10	2/24/2011 8:00:00 AM
Surr: Decachlorobiphenyl	78.8	30-150		%REC	10	2/24/2011 8:00:00 AM

Lab ID: 1102036-24
Collection Date: 2/15/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-H7.5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1221	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1232	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1242	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1248	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1254	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1260	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1262	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Aroclor 1268	ND	660		µg/Kg-dry	10	2/24/2011 8:26:00 AM
Surr: Tetrachloro-m-xylene	94.1	30-150		%REC	10	2/24/2011 8:26:00 AM
Surr: Decachlorobiphenyl	74.9	30-150		%REC	10	2/24/2011 8:26:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-25
Collection Date: 2/15/2011 11:23:00 AM
Collection Time:
Client Sample ID: 091503-H6.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/24/2011 8:53:00 AM
Surr: Tetrachloro-m-xylene	97.6	30-150		%REC	10	2/24/2011 8:53:00 AM
Surr: Decachlorobiphenyl	75.1	30-150		%REC	10	2/24/2011 8:53:00 AM

Lab ID: 1102036-26
Collection Date: 2/15/2011 11:24:00 AM
Collection Time:
Client Sample ID: 091503-H6.5-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1221	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1232	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1242	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1248	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1254	900	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1260	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1262	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Aroclor 1268	ND	480		µg/Kg-dry	10	2/24/2011 9:19:00 AM
Surr: Tetrachloro-m-xylene	95.9	30-150		%REC	10	2/24/2011 9:19:00 AM
Surr: Decachlorobiphenyl	101	30-150		%REC	10	2/24/2011 9:19:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-27
Collection Date: 2/15/2011 11:47:00 AM
Collection Time:
Client Sample ID: 091503-D8-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/24/2011 9:45:00 AM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/24/2011 9:45:00 AM
Surr: Decachlorobiphenyl	89.6	30-150		%REC	10	2/24/2011 9:45:00 AM

Lab ID: 1102036-28
Collection Date: 2/15/2011 11:48:00 AM
Collection Time:
Client Sample ID: 091503-D8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Aroclor 1248	4,200	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Aroclor 1254	12,000	1,100		µg/Kg-dry	20	2/24/2011 3:12:00 PM
Aroclor 1260	3,800	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/24/2011 10:12:00 AM
Surr: Tetrachloro-m-xylene	94.4	30-150		%REC	20	2/24/2011 3:12:00 PM
Surr: Tetrachloro-m-xylene	89.9	30-150		%REC	10	2/24/2011 10:12:00 AM
Surr: Decachlorobiphenyl	134	30-150		%REC	20	2/24/2011 3:12:00 PM
Surr: Decachlorobiphenyl	134	30-150		%REC	10	2/24/2011 10:12:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-29
Collection Date: 2/15/2011 11:49:00 AM
Collection Time:
Client Sample ID: 091503-D8-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1248	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1254	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1260	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/24/2011 10:39:00 AM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/24/2011 10:39:00 AM
Surr: Decachlorobiphenyl	87.8	30-150		%REC	10	2/24/2011 10:39:00 AM

Lab ID: 1102036-30
Collection Date: 2/15/2011 11:50:00 AM
Collection Time:
Client Sample ID: 091503-D8-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1221	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1232	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1242	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1248	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1254	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1260	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1262	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Aroclor 1268	ND	630		µg/Kg-dry	10	2/24/2011 11:05:00 AM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/24/2011 11:05:00 AM
Surr: Decachlorobiphenyl	90.1	30-150		%REC	10	2/24/2011 11:05:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-31
Collection Date: 2/15/2011 1:21:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/24/2011 11:31:00 AM
Surr: Tetrachloro-m-xylene	114	30-150		%REC	10	2/24/2011 11:31:00 AM
Surr: Decachlorobiphenyl	92.4	30-150		%REC	10	2/24/2011 11:31:00 AM

Lab ID: 1102036-32
Collection Date: 2/15/2011 1:22:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1221	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1232	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1242	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1248	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1254	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1260	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1262	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Aroclor 1268	ND	490		µg/Kg-dry	10	2/24/2011 11:58:00 AM
Surr: Tetrachloro-m-xylene	107	30-150		%REC	10	2/24/2011 11:58:00 AM
Surr: Decachlorobiphenyl	92.1	30-150		%REC	10	2/24/2011 11:58:00 AM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-33
Collection Date: 2/15/2011 1:23:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1254	700	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/24/2011 3:38:00 PM
Surr: Tetrachloro-m-xylene	113	30-150		%REC	10	2/24/2011 3:38:00 PM
Surr: Decachlorobiphenyl	94.4	30-150		%REC	10	2/24/2011 3:38:00 PM

Lab ID: 1102036-34
Collection Date: 2/15/2011 1:24:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/24/2011 4:05:00 PM
Surr: Tetrachloro-m-xylene	106	30-150		%REC	10	2/24/2011 4:05:00 PM
Surr: Decachlorobiphenyl	88.1	30-150		%REC	10	2/24/2011 4:05:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-35
Collection Date: 2/15/2011 2:05:00 PM
Collection Time:
Client Sample ID: 091503-E9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1221	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1232	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1242	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1248	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1254	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1260	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1262	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Aroclor 1268	ND	500		µg/Kg-dry	10	2/24/2011 4:31:00 PM
Surr: Tetrachloro-m-xylene	108	30-150		%REC	10	2/24/2011 4:31:00 PM
Surr: Decachlorobiphenyl	98.1	30-150		%REC	10	2/24/2011 4:31:00 PM

Lab ID: 1102036-36
Collection Date: 2/15/2011 2:06:00 PM
Collection Time:
Client Sample ID: 091503-E9-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1248	4,200	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1254	3,100	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1260	710	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/24/2011 4:58:00 PM
Surr: Tetrachloro-m-xylene	122	30-150		%REC	10	2/24/2011 4:58:00 PM
Surr: Decachlorobiphenyl	116	30-150		%REC	10	2/24/2011 4:58:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-37
Collection Date: 2/15/2011 2:07:00 PM
Collection Time:
Client Sample ID: 091503-E9-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1242	6,700	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1254	5,200	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1260	3,200	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/24/2011 5:25:00 PM
Surr: Tetrachloro-m-xylene	100	30-150		%REC	10	2/24/2011 5:25:00 PM
Surr: Decachlorobiphenyl	310	30-150	S	%REC	10	2/24/2011 5:25:00 PM

Lab ID: 1102036-38
Collection Date: 2/15/2011 2:08:00 PM
Collection Time:
Client Sample ID: 091503-E9-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/24/2011 5:51:00 PM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/24/2011 5:51:00 PM
Surr: Decachlorobiphenyl	87.6	30-150		%REC	10	2/24/2011 5:51:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-39
Collection Date: 2/15/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-E9-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1242	3,600	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1254	3,400	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1260	2,000	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/24/2011 6:18:00 PM
Surr: Tetrachloro-m-xylene	122	30-150		%REC	10	2/24/2011 6:18:00 PM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/24/2011 6:18:00 PM

Lab ID: 1102036-40
Collection Date: 2/15/2011 2:27:00 PM
Collection Time:
Client Sample ID: 091503-P10-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/24/2011 6:44:00 PM
Surr: Tetrachloro-m-xylene	113	30-150		%REC	10	2/24/2011 6:44:00 PM
Surr: Decachlorobiphenyl	93.8	30-150		%REC	10	2/24/2011 6:44:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102036
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102036-41 **Collection Date:** 2/15/2011 2:28:00 PM
Collection Time:
Client Sample ID: 091503-P10-S2(1-3) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1254	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/24/2011 7:11:00 PM
Surr: Tetrachloro-m-xylene	112	30-150		%REC	10	2/24/2011 7:11:00 PM
Surr: Decachlorobiphenyl	95.4	30-150		%REC	10	2/24/2011 7:11:00 PM

Lab ID: 1102036-42 **Collection Date:** 2/15/2011 2:42:00 PM
Collection Time:
Client Sample ID: 091503-E8-S1(0-0.5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1248	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1254	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1260	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/24/2011 7:37:00 PM
Surr: Tetrachloro-m-xylene	114	30-150		%REC	10	2/24/2011 7:37:00 PM
Surr: Decachlorobiphenyl	99.3	30-150		%REC	10	2/24/2011 7:37:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-43
Collection Date: 2/15/2011 2:43:00 PM
Collection Time:
Client Sample ID: 091503-E8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Aroclor 1248	ND	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Aroclor 1254	15,000	1,100		µg/Kg-dry	20	2/26/2011 5:54:00 AM
Aroclor 1260	3,200	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/24/2011 8:04:00 PM
Surr: Tetrachloro-m-xylene	106	30-150		%REC	20	2/26/2011 5:54:00 AM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/24/2011 8:04:00 PM
Surr: Decachlorobiphenyl	131	30-150		%REC	20	2/26/2011 5:54:00 AM
Surr: Decachlorobiphenyl	132	30-150		%REC	10	2/24/2011 8:04:00 PM

Lab ID: 1102036-44
Collection Date: 2/15/2011 2:44:00 PM
Collection Time:
Client Sample ID: 091503-E8-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1221	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1232	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1242	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1248	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1254	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1260	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1262	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Aroclor 1268	ND	640		µg/Kg-dry	10	2/24/2011 8:30:00 PM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/24/2011 8:30:00 PM
Surr: Decachlorobiphenyl	91.9	30-150		%REC	10	2/24/2011 8:30:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-45
Collection Date: 2/15/2011 2:45:00 PM
Collection Time:
Client Sample ID: 091503-E8-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1221	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1232	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1242	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1248	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1254	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1260	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1262	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Aroclor 1268	ND	730		µg/Kg-dry	10	2/24/2011 8:56:00 PM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/24/2011 8:56:00 PM
Surr: Decachlorobiphenyl	91.6	30-150		%REC	10	2/24/2011 8:56:00 PM

Lab ID: 1102036-46
Collection Date: 2/15/2011 3:48:00 PM
Collection Time:
Client Sample ID: 091503-EF9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/24/2011 9:23:00 PM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/24/2011 9:23:00 PM
Surr: Decachlorobiphenyl	91.9	30-150		%REC	10	2/24/2011 9:23:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling

Lab Order: 1102036

Lab ID: 1102036-47

Collection Date: 2/15/2011 3:49:00 PM
Collection Time:

Client Sample ID: 091503-EF9-S2(1-3)

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1221	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1232	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1242	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1248	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1254	950	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1260	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1262	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Aroclor 1268	ND	600		µg/Kg-dry	10	2/24/2011 9:49:00 PM
Surr: Tetrachloro-m-xylene	107	30-150		%REC	10	2/24/2011 9:49:00 PM
Surr: Decachlorobiphenyl	108	30-150		%REC	10	2/24/2011 9:49:00 PM

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102036
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21101** Batch ID: **21101** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 11:18:00 AM** Prep Date **2/21/11**

Client ID: Run ID: **GC-ELVIS_110222A** SeqNo: **770508**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	16.91	0	µg/Kg	16	0	106	30	150	0			
Surr: Decachlorobiphenyl	15.32	0	µg/Kg	16	0	95.8	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102036
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21102** Batch ID: **21102** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 5:31:00 PM** Prep Date **2/21/11**

Client ID: Run ID: **GC-ELVIS_110223A** SeqNo: **770756**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	14.71	0	µg/Kg	16	0	92	30	150	0			
Surr: Decachlorobiphenyl	14.63	0	µg/Kg	16	0	91.4	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102036
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21101** Batch ID: **21101** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 11:45:00 AM** Prep Date **2/21/11**
Client ID: Run ID: **GC-ELVIS_110222A** SeqNo: **770721**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	926.5	50	µg/Kg	1000	0	92.7	70.9	125	0			
Aroclor 1260	984.4	50	µg/Kg	1000	0	98.4	60.1	126	0			
Surr: Tetrachloro-m-xylene	15.86	0	µg/Kg	16	0	99.1	30	150	0			
Surr: Decachlorobiphenyl	15.62	0	µg/Kg	16	0	97.6	30	150	0			

Sample ID **LCSD-21101** Batch ID: **21101** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 12:11:00 PM** Prep Date **2/21/11**
Client ID: Run ID: **GC-ELVIS_110222A** SeqNo: **770722**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	906.1	50	µg/Kg	1000	0	90.6	70.9	125	926.5	2.22	50	
Aroclor 1260	928.8	50	µg/Kg	1000	0	92.9	60.1	126	984.4	5.82	50	
Surr: Tetrachloro-m-xylene	15.18	0	µg/Kg	16	0	94.8	30	150	0	0	0	
Surr: Decachlorobiphenyl	14.84	0	µg/Kg	16	0	92.7	30	150	0	0	0	

Sample ID **LCS-21102** Batch ID: **21102** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 5:57:00 PM** Prep Date **2/21/11**
Client ID: Run ID: **GC-ELVIS_110223A** SeqNo: **770757**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	924.3	50	µg/Kg	1000	0	92.4	70.9	125	0			
Aroclor 1260	974.9	50	µg/Kg	1000	0	97.5	60.1	126	0			
Surr: Tetrachloro-m-xylene	15.24	0	µg/Kg	16	0	95.3	30	150	0			
Surr: Decachlorobiphenyl	14.59	0	µg/Kg	16	0	91.2	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102036
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-21102** Batch ID: **21102** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/23/11 6:24:00 PM** Prep Date **2/21/11**

Client ID: Run ID: **GC-ELVIS_110223A** SeqNo: **770758**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	903.1	50	µg/Kg	1000	0	90.3	70.9	125	924.3	2.33	50	
Aroclor 1260	957	50	µg/Kg	1000	0	95.7	60.1	126	974.9	1.86	50	
Surr: Tetrachloro-m-xylene	14.61	0	µg/Kg	16	0	91.3	30	150	0	0	0	
Surr: Decachlorobiphenyl	14.66	0	µg/Kg	16	0	91.7	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-01
Collection Date: 2/15/2011 8:04:00 AM
Collection Time:
Client Sample ID: 091503-E4-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.2	0		wt%	1	2/16/2011

Lab ID: 1102036-02
Collection Date: 2/15/2011 8:05:00 AM
Collection Time:
Client Sample ID: 091503-E4-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.1	0		wt%	1	2/16/2011

Lab ID: 1102036-03
Collection Date: 2/15/2011 8:06:00 AM
Collection Time:
Client Sample ID: 091503-E4-S3(3-4)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	19.4	0		wt%	1	2/16/2011

Lab ID: 1102036-04
Collection Date: 2/15/2011 8:23:00 AM
Collection Time:
Client Sample ID: 091503-P22-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.4	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-05
Collection Date: 2/15/2011 8:24:00 AM
Collection Time:
Client Sample ID: 091503-P22-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.0	0		wt%	1	2/16/2011

Lab ID: 1102036-06
Collection Date: 2/15/2011 8:25:00 AM
Collection Time:
Client Sample ID: 091503-P22-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.0	0		wt%	1	2/16/2011

Lab ID: 1102036-07
Collection Date: 2/15/2011 8:26:00 AM
Collection Time:
Client Sample ID: 091503-P22-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	21.7	0		wt%	1	2/16/2011

Lab ID: 1102036-08
Collection Date: 2/15/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P22-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.2	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-09
Collection Date: 2/15/2011 8:47:00 AM
Collection Time:
Client Sample ID: 091503-P21-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.7	0		wt%	1	2/16/2011

Lab ID: 1102036-10
Collection Date: 2/15/2011 8:48:00 AM
Collection Time:
Client Sample ID: 091503-P21-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	4.6	0		wt%	1	2/16/2011

Lab ID: 1102036-11
Collection Date: 2/15/2011 8:49:00 AM
Collection Time:
Client Sample ID: 091503-P21-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.5	0		wt%	1	2/16/2011

Lab ID: 1102036-12
Collection Date: 2/15/2011 8:50:00 AM
Collection Time:
Client Sample ID: 091503-P21-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	18.4	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102036
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102036-13 **Collection Date:** 2/15/2011 9:13:00 AM
Collection Time:
Client Sample ID: 091503-P14-S1(0-0.5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.7	0		wt%	1	2/16/2011

Lab ID: 1102036-14 **Collection Date:** 2/15/2011 9:14:00 AM
Collection Time:
Client Sample ID: 091503-P14-S2(1-3) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.3	0		wt%	1	2/16/2011

Lab ID: 1102036-15 **Collection Date:** 2/15/2011 9:15:00 AM
Collection Time:
Client Sample ID: 091503-P14-S3(3-4) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.0	0		wt%	1	2/16/2011

Lab ID: 1102036-16 **Collection Date:** 2/15/2011 10:25:00 AM
Collection Time:
Client Sample ID: 091503-E6-S1(0-0.5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	25.4	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-17
Collection Date: 2/15/2011 10:26:00 AM
Collection Time:
Client Sample ID: 091503-E6-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.8	0		wt%	1	2/16/2011

Lab ID: 1102036-18
Collection Date: 2/15/2011 10:27:00 AM
Collection Time:
Client Sample ID: 091503-E6-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.4	0		wt%	1	2/16/2011

Lab ID: 1102036-19
Collection Date: 2/15/2011 10:28:00 AM
Collection Time:
Client Sample ID: 091503-E6-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	18.5	0		wt%	1	2/16/2011

Lab ID: 1102036-20
Collection Date: 2/15/2011 10:51:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.1	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-21
Collection Date: 2/15/2011 10:52:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.1	0		wt%	1	2/16/2011

Lab ID: 1102036-22
Collection Date: 2/15/2011 10:53:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.1	0		wt%	1	2/16/2011

Lab ID: 1102036-23
Collection Date: 2/15/2011 10:54:00 AM
Collection Time:
Client Sample ID: 091503-H7.5-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	22.1	0		wt%	1	2/16/2011

Lab ID: 1102036-24
Collection Date: 2/15/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-H7.5-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	26.2	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-25
Collection Date: 2/15/2011 11:23:00 AM
Collection Time:
Client Sample ID: 091503-H6.5-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.1	0		wt%	1	2/16/2011

Lab ID: 1102036-26
Collection Date: 2/15/2011 11:24:00 AM
Collection Time:
Client Sample ID: 091503-H6.5-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	3.7	0		wt%	1	2/16/2011

Lab ID: 1102036-27
Collection Date: 2/15/2011 11:47:00 AM
Collection Time:
Client Sample ID: 091503-D8-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	9.9	0		wt%	1	2/16/2011

Lab ID: 1102036-28
Collection Date: 2/15/2011 11:48:00 AM
Collection Time:
Client Sample ID: 091503-D8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.2	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-29
Collection Date: 2/15/2011 11:49:00 AM
Collection Time:
Client Sample ID: 091503-D8-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	20.1	0		wt%	1	2/16/2011

Lab ID: 1102036-30
Collection Date: 2/15/2011 11:50:00 AM
Collection Time:
Client Sample ID: 091503-D8-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	21.4	0		wt%	1	2/16/2011

Lab ID: 1102036-31
Collection Date: 2/15/2011 1:21:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.3	0		wt%	1	2/16/2011

Lab ID: 1102036-32
Collection Date: 2/15/2011 1:22:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.5	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-33
Collection Date: 2/15/2011 1:23:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.9	0		wt%	1	2/16/2011

Lab ID: 1102036-34
Collection Date: 2/15/2011 1:24:00 PM
Collection Time:
Client Sample ID: 091503-CD9-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.7	0		wt%	1	2/16/2011

Lab ID: 1102036-35
Collection Date: 2/15/2011 2:05:00 PM
Collection Time:
Client Sample ID: 091503-E9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	5.6	0		wt%	1	2/16/2011

Lab ID: 1102036-36
Collection Date: 2/15/2011 2:06:00 PM
Collection Time:
Client Sample ID: 091503-E9-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.3	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-37
Collection Date: 2/15/2011 2:07:00 PM
Collection Time:
Client Sample ID: 091503-E9-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.0	0		wt%	1	2/16/2011

Lab ID: 1102036-38
Collection Date: 2/15/2011 2:08:00 PM
Collection Time:
Client Sample ID: 091503-E9-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.5	0		wt%	1	2/16/2011

Lab ID: 1102036-39
Collection Date: 2/15/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-E9-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	12.8	0		wt%	1	2/16/2011

Lab ID: 1102036-40
Collection Date: 2/15/2011 2:27:00 PM
Collection Time:
Client Sample ID: 091503-P10-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.4	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-41
Collection Date: 2/15/2011 2:28:00 PM
Collection Time:
Client Sample ID: 091503-P10-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.4	0		wt%	1	2/16/2011

Lab ID: 1102036-42
Collection Date: 2/15/2011 2:42:00 PM
Collection Time:
Client Sample ID: 091503-E8-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	5.1	0		wt%	1	2/16/2011

Lab ID: 1102036-43
Collection Date: 2/15/2011 2:43:00 PM
Collection Time:
Client Sample ID: 091503-E8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.4	0		wt%	1	2/16/2011

Lab ID: 1102036-44
Collection Date: 2/15/2011 2:44:00 PM
Collection Time:
Client Sample ID: 091503-E8-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	22.8	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102036

Lab ID: 1102036-45
Collection Date: 2/15/2011 2:45:00 PM
Collection Time:
Client Sample ID: 091503-E8-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	33.6	0		wt%	1	2/16/2011

Lab ID: 1102036-46
Collection Date: 2/15/2011 3:48:00 PM
Collection Time:
Client Sample ID: 091503-EF9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	7.9	0		wt%	1	2/16/2011

Lab ID: 1102036-47
Collection Date: 2/15/2011 3:49:00 PM
Collection Time:
Client Sample ID: 091503-EF9-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	17.5	0		wt%	1	2/16/2011

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
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www.amrolabs.com

March 01, 2011

ANALYTICAL TEST RESULTS

Raymond Siegener
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
TEL: (781) 721-4098
FAX: (781) 721-4073

Subject: 09150-3 Moran Terminal - AUL Drilling Workorder No.: 1102044

Dear Raymond Siegener:

AMRO Environmental Laboratories Corp. received 46 samples on 2/17/2011 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of 62 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001.

Hard copy of the State Certification is available upon request.

AMRO Environmental Laboratories Corp.

Date: *28-Feb-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044
Date Received: 2/17/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102044-01A	091503-EF8-S1(0-0.5)	2/16/2011	9:03 AM
1102044-02A	091503-EF8-S2(1-3)	2/16/2011	9:04 AM
1102044-03A	091503-EF8-S3(3-3.5)	2/16/2011	9:05 AM
1102044-04A	091503-A12-S1(0-0.5)	2/16/2011	9:56 AM
1102044-05A	091503-A12-S2(1-3)	2/16/2011	9:57 AM
1102044-06A	091503-A12-S3(3-5)	2/16/2011	9:58 AM
1102044-07A	091503-A12-S4(5-7)	2/16/2011	9:59 AM
1102044-08A	091503-A12-S20	2/16/2011	12:00 PM
1102044-09A	091503-P15-S1(0-0.5)	2/16/2011	10:07 AM
1102044-10A	091503-P15-S2(1-3)	2/16/2011	10:08 AM
1102044-11A	091503-P15-S3(3-5)	2/16/2011	10:09 AM
1102044-12A	091503-P16-S1(0-0.5)	2/16/2011	10:45 AM
1102044-13A	091503-P16-S2(1-3)	2/16/2011	10:46 AM
1102044-14A	091503-P16-S3(3-5)	2/16/2011	10:47 AM
1102044-15A	091503-P16-S4(5-7)	2/16/2011	10:48 AM
1102044-16A	091503-P16-S20	2/16/2011	12:00 PM
1102044-17A	091503-B11-S1(0-0.5)	2/16/2011	11:21 AM
1102044-18A	091503-B11-S2(1-3)	2/16/2011	11:22 AM
1102044-19A	091503-P13-S1(0-0.5)	2/16/2011	11:38 AM
1102044-20A	091503-P13-S2(1-3)	2/16/2011	11:39 AM
1102044-21A	091503-P13-S3(3-5)	2/16/2011	11:40 AM
1102044-22A	091503-B10-S1(0-0.5)	2/16/2011	11:46 AM
1102044-23A	091503-B10-S2(1-3)	2/16/2011	11:47 AM
1102044-24A	091503-B10-S3(3-4.5)	2/16/2011	11:48 AM
1102044-25A	091503-P17-S1(0-0.5)	2/16/2011	12:15 PM
1102044-26A	091503-P17-S2(1-3)	2/16/2011	12:16 PM
1102044-27A	091503-P17-S3(3-5)	2/16/2011	12:17 PM
1102044-28A	091503-P17-S4(5-7)	2/16/2011	12:18 PM
1102044-29A	091503-C10-S1(0-0.5)	2/16/2011	12:43 PM
1102044-30A	091503-C10-S2(1-3)	2/16/2011	12:44 PM
1102044-31A	091503-C10-S3(3-4.5)	2/16/2011	12:45 PM
1102044-32A	091503-C9-S1(0-0.5)	2/16/2011	12:58 PM
1102044-33A	091503-C9-S2(1-2.5)	2/16/2011	12:59 PM
1102044-34A	091503-C8-S1(0-0.5)	2/16/2011	1:12 PM
1102044-35A	091503-C8-S2(1-3)	2/16/2011	1:13 PM

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CLIENT:	GEI Consultants, Inc.
Project:	09150-3 Moran Terminal - AUL Drilling
Lab Order:	1102044
Date Received:	2/17/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102044-36A	091503-C8-S3(3-4.5)	2/16/2011	1:14 PM
1102044-37A	091503-C8-S20	2/16/2011	12:00 PM
1102044-38A	091503-P18-S1(0-0.5)	2/16/2011	1:32 PM
1102044-39A	091503-P18-S2(1-3)	2/16/2011	1:33 PM
1102044-40A	091503-P18-S3(3-5)	2/16/2011	1:34 PM
1102044-41A	091503-P18-S4(5-7)	2/16/2011	1:35 PM
1102044-42A	091503-P20-S1(0-0.5)	2/16/2011	1:49 PM
1102044-43A	091503-P20-S2(1-3)	2/16/2011	1:50 PM
1102044-44A	091503-P20-S3(3-5)	2/16/2011	1:51 PM
1102044-45A	091503-P20-S4(5-7)	2/16/2011	1:52 PM
1102044-46A	091503-P20-S20	2/16/2011	12:00 PM

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-01A	091503-EF8-S1(0-0.5)	2/16/2011 9:03:00 AM	Soil	EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/17/2011	
						R46256	
1102044-02A	091503-EF8-S2(1-3)	2/16/2011 9:04:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/17/2011	
						R46256	
1102044-03A	091503-EF8-S3(3-3.5)	2/16/2011 9:05:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
					2/22/2011	21103	
				Percent Moisture		2/17/2011	
						R46256	
1102044-04A	091503-A12-S1(0-0.5)	2/16/2011 9:56:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/17/2011	
						R46256	
1102044-05A	091503-A12-S2(1-3)	2/16/2011 9:57:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21103	
				Percent Moisture		2/17/2011	
						R46256	
1102044-06A	091503-A12-S3(3-5)	2/16/2011 9:58:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-06A	091503-A12-S3(3-5)	2/16/2011 9:58:00 AM	Soil	Percent Moisture		2/17/2011 R46256	
1102044-07A	091503-A12-S4(5-7)	2/16/2011 9:59:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-08A	091503-A12-S20	2/16/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-09A	091503-P15-S1(0-0.5)	2/16/2011 10:07:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-10A	091503-P15-S2(1-3)	2/16/2011 10:08:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-11A	091503-P15-S3(3-5)	2/16/2011 10:09:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-12A	091503-P16-S1(0-0.5)	2/16/2011 10:45:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-12A	091503-P16-S1(0-0.5)	2/16/2011 10:45:00 AM	Soil	Percent Moisture		2/17/2011 R46256	
1102044-13A	091503-P16-S2(1-3)	2/16/2011 10:46:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/24/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-14A	091503-P16-S3(3-5)	2/16/2011 10:47:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-15A	091503-P16-S4(5-7)	2/16/2011 10:48:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-16A	091503-P16-S20	2/16/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-17A	091503-B11-S1(0-0.5)	2/16/2011 11:21:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-18A	091503-B11-S2(1-3)	2/16/2011 11:22:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-18A	091503-B11-S2(1-3)	2/16/2011 11:22:00 AM	Soil	Percent Moisture		2/17/2011	
						R46256	
1102044-19A	091503-P13-S1(0-0.5)	2/16/2011 11:38:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011	
						R46256	
1102044-20A	091503-P13-S2(1-3)	2/16/2011 11:39:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011	
						R46256	
1102044-21A	091503-P13-S3(3-5)	2/16/2011 11:40:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011	
						R46256	
1102044-22A	091503-B10-S1(0-0.5)	2/16/2011 11:46:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011	
						R46256	
1102044-23A	091503-B10-S2(1-3)	2/16/2011 11:47:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011	
						R46256	
1102044-24A	091503-B10-S3(3-4.5)	2/16/2011 11:48:00 AM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-24A	091503-B10-S3(3-4.5)	2/16/2011 11:48:00 AM	Soil	Percent Moisture		2/17/2011 R46256	
1102044-25A	091503-P17-S1(0-0.5)	2/16/2011 12:15:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/22/2011	21104	
				Percent Moisture		2/17/2011 R46256	
1102044-26A	091503-P17-S2(1-3)	2/16/2011 12:16:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-27A	091503-P17-S3(3-5)	2/16/2011 12:17:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/28/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-28A	091503-P17-S4(5-7)	2/16/2011 12:18:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-29A	091503-C10-S1(0-0.5)	2/16/2011 12:43:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-30A	091503-C10-S2(1-3)	2/16/2011 12:44:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-30A	091503-C10-S2(1-3)	2/16/2011 12:44:00 PM	Soil	Percent Moisture		2/17/2011 R46256	
1102044-31A	091503-C10-S3(3-4.5)	2/16/2011 12:45:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-32A	091503-C9-S1(0-0.5)	2/16/2011 12:58:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-33A	091503-C9-S2(1-2.5)	2/16/2011 12:59:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-34A	091503-C8-S1(0-0.5)	2/16/2011 1:12:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-35A	091503-C8-S2(1-3)	2/16/2011 1:13:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-36A	091503-C8-S3(3-4.5)	2/16/2011 1:14:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-36A	091503-C8-S3(3-4.5)	2/16/2011 1:14:00 PM	Soil	Percent Moisture		2/17/2011 R46256	
1102044-37A	091503-C8-S20	2/16/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/25/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-38A	091503-P18-S1(0-0.5)	2/16/2011 1:32:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-39A	091503-P18-S2(1-3)	2/16/2011 1:33:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-40A	091503-P18-S3(3-5)	2/16/2011 1:34:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-41A	091503-P18-S4(5-7)	2/16/2011 1:35:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-42A	091503-P20-S1(0-0.5)	2/16/2011 1:49:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	

AMRO Environmental Laboratories Corp.

01-Mar-11

Lab Order: 1102044
Client: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL D

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1102044-42A	091503-P20-S1(0-0.5)	2/16/2011 1:49:00 PM	Soil	Percent Moisture		2/17/2011 R46256	
1102044-43A	091503-P20-S2(1-3)	2/16/2011 1:50:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-44A	091503-P20-S3(3-5)	2/16/2011 1:51:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21107	
				Percent Moisture		2/17/2011 R46256	
1102044-45A	091503-P20-S4(5-7)	2/16/2011 1:52:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21108	
				Percent Moisture		2/17/2011 R46256	
1102044-46A	091503-P20-S20	2/16/2011 12:00:00 PM		EPA 8082 PCBS IN SOIL/SOLIDS		2/26/2011	
				EPA 3540C SOPREP SOXHLET: PCBS	2/23/2011	21108	
				Percent Moisture		2/17/2011 R46256	

Chain-of-Custody Record

Laboratory: AMRO.

Laboratory Job # (Lab use only) # 1102044

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling: Samples Field Filtered YES NO **NA**

Sampled Shipped With Ice **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**	Sample Specific Remarks
	091503-EFE-S1(0-0.5)	2/16/11	0903	SO	1	CMM		x	
	091503-EFE-S2(1-3)		0904	SO	1	CMM		x	
	091503-EFE-S3(3-3.5)		0905	SO	1	CMM		x	
	091503-A12-S1(0-0.5)		0956	SO	1	CMM		x	
	091503-A12-S2(1-3)		0957	SO	1	CMM		x	
	091503-A12-S3(3-5)		0958	SO	1	CMM		x	
	091503-A12-S4(5-7)		0959	SO	1	CMM		x	
	091503-A12-S20		1200	SO	1	CMM		x	
	091503-P15-S1(0-0.5)		1007	SO	1	CMM		x	
	091503-P15-S2(1-3)		1008	SO	1	CMM		x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagnda	2/16/11	1700	1. GEI FRIDGE
Relinquished by: (signature) 2. GEI Fridge	Date: 2/17/11	Time: 0815	Received by: (signature) 2. [illegible]
Relinquished by: (signature) 3. [illegible]	Date: "	Time: "	Received by: (signature) 3. [illegible]
Relinquished by: (signature) [illegible]	Date: 2/17/11	Time: 0910	Received by: (signature) 4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only): #1102044

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 2 of 5

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

Preservative: None

Analysis: PCBs (8082)**

Sample Handling

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs (8082)**	Sample Specific Remarks
	091503-P15-S3(3-5)	2/16/11	1009	SO	1	CMM	x	
	091503-P16-S1(0-0.5)		1045	SO	1	CMM	x	
	091503-P16-S2(1-3)		1046	SO	1	CMM	x	
	091503-P16-S3(3-5)		1047	SO	1	CMM	x	
	091503-P16-S4(5-7)		1048	SO	1	CMM	x	
	091503-P16-S20		1200	SO	1	CMM	x	
	091503-B11-S1(0-0.5)		1121	SO	1	CMM	x	
	091503-B11-S2(1-3)		1122	SO	1	CMM	x	
	091503-P13-S1(0-0.5)		1138	SO	1	CMM	x	
	091503-P13-S2(1-3)		1139	SO	1	CMM	x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagnda	2/16/11	1700	1. GM FRIDGE
2. GM Fridge	2/17/11	0800/10	2. [illegible]
3. [illegible]	"	"	3. [illegible]
4. [illegible]	2/17/11	0910	4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only): #1102044

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling: Samples Field Filtered YES NO **NA**; Sampled Shipped With Ice **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**							Sample Specific Remarks
	091503- B13-S3(3-5)	2/16/11	1140	SO	1	CMM		x							
	091503- B10-S1(0-0.5)	↓	1146	SO	1	CMM		x							
	091503- B10-S2(1-3)		1147	SO	1	CMM		x							
	091503- B10-S3(3-4.5)		1148	SO	1	CMM		x							
	091503- B17-S1(0-0.5)		1215	SO	1	CMM		x							
	091503- B17-S2(1-3)		1216	SO	1	CMM		x							
	091503- B17-S3(3-5)		1217	SO	1	CMM		x							
	091503- B17-S4(5-7)		1218	SO	1	CMM		x							
	~~091503- B17-S5(7-9)~~			~~SO~~	~~1~~	~~CMM~~		~~x~~	CMM						
	~~091503- B17-S6(9-11)~~			~~SO~~	~~1~~	~~CMM~~		~~x~~	CMM						

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagarda	2/16/11	1700	1. GEI FRIDGE
Relinquished by: (signature) 2. GEI Fridge	Date: 2/17/11	Time: 0815	Received by: (signature) 2. B. Wood
Relinquished by: (signature) 3. B. Wood	Date: "	Time: "	Received by: (signature) 3. [illegible]
Relinquished by: (signature) [illegible]	Date: 2/17/11	Time: 0810	Received by: (signature) 4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO.

Laboratory Job # (Lab use only) #1102044

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Sample Handling: Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**	Sample Specific Remarks
	091503-~~C9~~ C10-S1(0-0.5)	2/16/11	1243	SO	1	CMM		x	
	091503-~~C9~~ C10-S2(1-3)		1244	SO	1	CMM		x	
	091503-~~C9~~ C10-S3(3-4.5)		1245	SO	1	CMM		x	
	091503-C9-S1(0-0.5)		1258	SO	1	CMM		x	
	091503-C9-S2(1-2.5)		1259.	SO	1	CMM		x	
	091503-C8-S1(0-0.5)		1312	SO	1	CMM		x	
	091503-C8-S2(1-3)		1313	SO	1	CMM		x	
	091503-C8-S3(3-4.5)		1314	SO	1	CMM		x	
	091503-C8-S2D		1200	SO	1	CMM		x	
	091503-P18-S1(0-0.5)		1332	SO	1	CMM		x	

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C Malagnda	2/16/11	1700	1. GEI FRIDGE
Relinquished by: (signature) 2. GEI Fridge	Date: 2/17/11	Time: 0815	Received by: (signature) 2. K. Wells
Relinquished by: (signature) 3. K. Wells	Date: "	Time: "	Received by: (signature) 3. [illegible]
Relinquished by: (signature) 4. [illegible]	Date: 2/17/11	Time: 0910	Received by: (signature) 4. Kim Sudano

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

Chain-of-Custody Record

Laboratory: AMRO.

Laboratory Job # (Lab use only) #1102044

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: Moran Terminal - AUL Drilling

Project Location: Charlestown, MA

Project Number: 09150-3

Project Manager: C. Johnson

Page 5 of 5

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – **YES** NO

If Yes, Are MCP Analytical Methods Required? **YES** NO NA

If Yes, Are Drinking Water Samples Submitted? YES **NO** NA

If Yes, Have You Met Minimum Field QC Requirements? **YES** NO NA

Samples Field Filtered: YES NO **NA**

Sampled Shipped With Ice: **YES** NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: PCBs (8082)**							Sample Specific Remarks
	091503-P18-S2(1-3)	2/16/11	1333	SO	1	CMM		x							
	091503-P18-S3(3-5)		1334	SO	1	CMM		x							
	091503-P18-S4(5-7)		1335.	SO	1	CMM		x							
	091503-P20-S1(0-0.5)		1349	SO	1	CMM		x							
	091503-P20-S2(1-3)		1350	SO	1	CMM		x							
	091503-P20-S3(3-5)		1351	SO	1	CMM		x							
	091503-P20-S4(5-7)		1352	SO	1	CMM		x							
	091503-P20-S20		1200	SO	1	CMM		x							
	~~091503-~~			~~SO~~	~~1~~	~~CMM~~		~~x~~ CMM							
	~~091503-~~			~~SO~~	~~1~~	~~CMM~~		~~x~~ CMM							

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagarda	2/16/11	1700	1. GEI FRIDGE
Relinquished by: (signature) 2. GEI Fridge	Date: 2/17/11	Time: 0815	Received by: (signature) 2. [illegible]
Relinquished by: (signature) 3. [illegible]	Date: "	Time: "	Received by: (signature) 3. [illegible]
Relinquished by: (signature) 4. [illegible]	Date: 2/17/11	Time: 0910	Received by: (signature) 4. [illegible]

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day _X_ 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

** Manual soxhlet extraction required

AMRO Environmental Laboratories Corporation

SAMPLE RECEIPT CHECKLIST

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Client: GZI
Project Name: 09150-3 MORAN TERMINAL
Ship via: (circle one) Fed Ex., UPS, AMRO Courier, Hand Del., Other Courier, Other:

AMRO ID: 1102044
Date Rec.: 2-17-11
Date Due: 2-24-11

Items to be Checked Upon Receipt	Yes	No	NA	Comments
1. Army Samples received in individual plastic bags?			✓	
2. Custody Seals present?			✓	
3. Custody Seals Intact?			✓	
4. Air Bill included in folder if received?			✓	
5. Is COC included with samples?	✓			
6. Is COC signed and dated by client?	✓			
7. Laboratory receipt temperature. TEMP = 40				
Samples rec. with ice ✓ ice packs___ neither___				
8. Were samples received the same day they were sampled?		✓		
Is client temperature = or <6°C ?	✓			
If no obtain authorization from the client for the analyses.				
Client authorization from: Date: Obtained by:				
9. Is the COC filled out correctly and completely?	✓			
10. Does the info on the COC match the samples?	✓			
11. Were samples rec. within holding time?	✓			
12. Were all samples properly labeled?	✓			
13. Were all samples properly preserved?	✓			
14. Were proper sample containers used?	✓			
15. Were all samples received intact? (none broken or leaking)	✓			
16. Were VOA vials rec. with no air bubbles?			✓	
17. Were the sample volumes sufficient for requested analysis?	✓			
18. Were all samples received?	✓			
19. VPH and VOA Soils only:			✓	
Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)				
Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk				
If M or SB:				
Does preservative cover the soil?				
If NO then client must be faxed.				
Does preservation level come close to the fill line on the vial?				
If NO then client must be faxed.				
Were vials provided by AMRO?				
If NO then weights MUST be obtained from client				
Was dry weight aliquot provided?				
If NO then fax client and inform the VOA lab ASAP.				
20. Subcontracted Samples:			✓	
What samples sent:				
Where sent:				
Date:				
Analysis:				
TAT:				
21. Information entered into:				
Internal Tracking Log?	✓			
Dry Weight Log?	✓			
Client Log?			✓	
Composite Log?			✓	
Filtration Log?			✓	

Received By: MG Date: 2-17-11 Logged in By: MG Date: 2-17-11
Labeled By: MG Date: 2-17-11 Checked By: [illegible] Date: 2-17-11

NA= Not Applicable

qc/qcmemos/forms/samplerec Rev.19 04/20/09

CASE NARRATIVE

PCBs:

1. No QC deviations were noted.

MassDEP Analytical Protocol Certification Form

Laboratory Name: AMRO Environmental Lab. Corp. Project #: 09150-3

Project Location: Moran Terminal - AVL Drilling RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
1102044-01 → -46

Matrices: Groundwater/Surface Water Soil/Sediment ✓ Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A ✓	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] Position: Vice President

Printed Name: Nancy Stewart Date: 3-1-11

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-01
Collection Date: 2/16/2011 9:03:00 AM
Collection Time:
Client Sample ID: 091503-EF8-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/25/2011 4:41:00 AM
Surr: Tetrachloro-m-xylene	119	30-150		%REC	10	2/25/2011 4:41:00 AM
Surr: Decachlorobiphenyl	117	30-150		%REC	10	2/25/2011 4:41:00 AM

Lab ID: 1102044-02
Collection Date: 2/16/2011 9:04:00 AM
Collection Time:
Client Sample ID: 091503-EF8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1221	ND	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1232	ND	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1242	ND	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1248	4,600	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1254	2,500	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1260	550	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1262	ND	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Aroclor 1268	ND	510		µg/Kg-dry	10	2/26/2011 12:38:00 AM
Surr: Tetrachloro-m-xylene	95.6	30-150		%REC	10	2/26/2011 12:38:00 AM
Surr: Decachlorobiphenyl	86.1	30-150		%REC	10	2/26/2011 12:38:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-03
Collection Date: 2/16/2011 9:05:00 AM
Collection Time:
Client Sample ID: 091503-EF8-S3(3-3.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Aroclor 1248	13,000	1,100		µg/Kg-dry	20	2/26/2011 1:31:00 AM
Aroclor 1254	8,000	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Aroclor 1260	2,100	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/26/2011 1:04:00 AM
Surr: Tetrachloro-m-xylene	98.7	30-150		%REC	10	2/26/2011 1:04:00 AM
Surr: Decachlorobiphenyl	114	30-150		%REC	10	2/26/2011 1:04:00 AM

Lab ID: 1102044-04
Collection Date: 2/16/2011 9:56:00 AM
Collection Time:
Client Sample ID: 091503-A12-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/25/2011 6:03:00 AM
Surr: Tetrachloro-m-xylene	117	30-150		%REC	10	2/25/2011 6:03:00 AM
Surr: Decachlorobiphenyl	120	30-150		%REC	10	2/25/2011 6:03:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-05
Collection Date: 2/16/2011 9:57:00 AM
Collection Time:
Client Sample ID: 091503-A12-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1260	3,100	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/25/2011 6:30:00 AM
Surr: Tetrachloro-m-xylene	116	30-150		%REC	10	2/25/2011 6:30:00 AM
Surr: Decachlorobiphenyl	134	30-150		%REC	10	2/25/2011 6:30:00 AM

Lab ID: 1102044-06
Collection Date: 2/16/2011 9:58:00 AM
Collection Time:
Client Sample ID: 091503-A12-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/25/2011 6:57:00 AM
Surr: Tetrachloro-m-xylene	110	30-150		%REC	10	2/25/2011 6:57:00 AM
Surr: Decachlorobiphenyl	114	30-150		%REC	10	2/25/2011 6:57:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-07
Collection Date: 2/16/2011 9:59:00 AM
Collection Time:
Client Sample ID: 091503-A12-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1221	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1232	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1242	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1248	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1254	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1260	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1262	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Aroclor 1268	ND	630		µg/Kg-dry	10	2/25/2011 7:24:00 AM
Surr: Tetrachloro-m-xylene	113	30-150		%REC	10	2/25/2011 7:24:00 AM
Surr: Decachlorobiphenyl	119	30-150		%REC	10	2/25/2011 7:24:00 AM

Lab ID: 1102044-08
Collection Date: 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-A12-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/25/2011 7:52:00 AM
Surr: Tetrachloro-m-xylene	109	30-150		%REC	10	2/25/2011 7:52:00 AM
Surr: Decachlorobiphenyl	112	30-150		%REC	10	2/25/2011 7:52:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-09
Collection Date: 2/16/2011 10:07:00 AM
Collection Time:
Client Sample ID: 091503-P15-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/25/2011 8:19:00 AM
Surr: Tetrachloro-m-xylene	96.0	30-150		%REC	10	2/25/2011 8:19:00 AM
Surr: Decachlorobiphenyl	95.4	30-150		%REC	10	2/25/2011 8:19:00 AM

Lab ID: 1102044-10
Collection Date: 2/16/2011 10:08:00 AM
Collection Time:
Client Sample ID: 091503-P15-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/26/2011 1:57:00 AM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/26/2011 1:57:00 AM
Surr: Decachlorobiphenyl	104	30-150		%REC	10	2/26/2011 1:57:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-11
Collection Date: 2/16/2011 10:09:00 AM
Collection Time:
Client Sample ID: 091503-P15-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/24/2011 10:16:00 PM
Surr: Tetrachloro-m-xylene	109	30-150		%REC	10	2/24/2011 10:16:00 PM
Surr: Decachlorobiphenyl	95.4	30-150		%REC	10	2/24/2011 10:16:00 PM

Lab ID: 1102044-12
Collection Date: 2/16/2011 10:45:00 AM
Collection Time:
Client Sample ID: 091503-P16-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/24/2011 10:42:00 PM
Surr: Tetrachloro-m-xylene	111	30-150		%REC	10	2/24/2011 10:42:00 PM
Surr: Decachlorobiphenyl	103	30-150		%REC	10	2/24/2011 10:42:00 PM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-13
Collection Date: 2/16/2011 10:46:00 AM
Collection Time:
Client Sample ID: 091503-P16-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/24/2011 11:08:00 PM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/24/2011 11:08:00 PM
Surr: Decachlorobiphenyl	102	30-150		%REC	10	2/24/2011 11:08:00 PM

Lab ID: 1102044-14
Collection Date: 2/16/2011 10:47:00 AM
Collection Time:
Client Sample ID: 091503-P16-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1248	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1254	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1260	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/25/2011 1:47:00 AM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/25/2011 1:47:00 AM
Surr: Decachlorobiphenyl	105	30-150		%REC	10	2/25/2011 1:47:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-15
Collection Date: 2/16/2011 10:48:00 AM
Collection Time:
Client Sample ID: 091503-P16-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1248	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1254	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1260	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/25/2011 2:13:00 AM
Surr: Tetrachloro-m-xylene	98.1	30-150		%REC	10	2/25/2011 2:13:00 AM
Surr: Decachlorobiphenyl	117	30-150		%REC	10	2/25/2011 2:13:00 AM

Lab ID: 1102044-16
Collection Date: 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P16-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1221	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1232	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1242	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1248	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1254	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1260	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1262	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Aroclor 1268	ND	600		µg/Kg-dry	10	2/25/2011 2:40:00 AM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/25/2011 2:40:00 AM
Surr: Decachlorobiphenyl	98.6	30-150		%REC	10	2/25/2011 2:40:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-17
Collection Date: 2/16/2011 11:21:00 AM
Collection Time:
Client Sample ID: 091503-B11-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/25/2011 3:06:00 AM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/25/2011 3:06:00 AM
Surr: Decachlorobiphenyl	102	30-150		%REC	10	2/25/2011 3:06:00 AM

Lab ID: 1102044-18
Collection Date: 2/16/2011 11:22:00 AM
Collection Time:
Client Sample ID: 091503-B11-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1248	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1254	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/25/2011 3:32:00 AM
Surr: Tetrachloro-m-xylene	103	30-150		%REC	10	2/25/2011 3:32:00 AM
Surr: Decachlorobiphenyl	106	30-150		%REC	10	2/25/2011 3:32:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-19
Collection Date: 2/16/2011 11:38:00 AM
Collection Time:
Client Sample ID: 091503-P13-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1248	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1254	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1260	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/25/2011 3:59:00 AM
Surr: Tetrachloro-m-xylene	105	30-150		%REC	10	2/25/2011 3:59:00 AM
Surr: Decachlorobiphenyl	102	30-150		%REC	10	2/25/2011 3:59:00 AM

Lab ID: 1102044-20
Collection Date: 2/16/2011 11:39:00 AM
Collection Time:
Client Sample ID: 091503-P13-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1221	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1232	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1242	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1248	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1254	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1260	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1262	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Aroclor 1268	ND	740		µg/Kg-dry	10	2/25/2011 4:25:00 AM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/25/2011 4:25:00 AM
Surr: Decachlorobiphenyl	95.1	30-150		%REC	10	2/25/2011 4:25:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-21
Collection Date: 2/16/2011 11:40:00 AM
Collection Time:
Client Sample ID: 091503-P13-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/25/2011 4:52:00 AM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/25/2011 4:52:00 AM
Surr: Decachlorobiphenyl	101	30-150		%REC	10	2/25/2011 4:52:00 AM

Lab ID: 1102044-22
Collection Date: 2/16/2011 11:46:00 AM
Collection Time:
Client Sample ID: 091503-B10-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/25/2011 5:18:00 AM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/25/2011 5:18:00 AM
Surr: Decachlorobiphenyl	100	30-150		%REC	10	2/25/2011 5:18:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-23
Collection Date: 2/16/2011 11:47:00 AM
Collection Time:
Client Sample ID: 091503-B10-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1248	570	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1254	1,200	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/25/2011 5:44:00 AM
Surr: Tetrachloro-m-xylene	99.9	30-150		%REC	10	2/25/2011 5:44:00 AM
Surr: Decachlorobiphenyl	103	30-150		%REC	10	2/25/2011 5:44:00 AM

Lab ID: 1102044-24
Collection Date: 2/16/2011 11:48:00 AM
Collection Time:
Client Sample ID: 091503-B10-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1248	2,200	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1254	2,600	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1260	700	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/25/2011 6:11:00 AM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/25/2011 6:11:00 AM
Surr: Decachlorobiphenyl	110	30-150		%REC	10	2/25/2011 6:11:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-25
Collection Date: 2/16/2011 12:15:00 PM
Collection Time:
Client Sample ID: 091503-P17-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/25/2011 6:37:00 AM
Surr: Tetrachloro-m-xylene	107	30-150		%REC	10	2/25/2011 6:37:00 AM
Surr: Decachlorobiphenyl	97.9	30-150		%REC	10	2/25/2011 6:37:00 AM

Lab ID: 1102044-26
Collection Date: 2/16/2011 12:16:00 PM
Collection Time:
Client Sample ID: 091503-P17-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1221	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1232	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1242	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1248	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1254	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1260	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1262	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Aroclor 1268	ND	610		µg/Kg-dry	10	2/25/2011 4:42:00 PM
Surr: Tetrachloro-m-xylene	111	30-150		%REC	10	2/25/2011 4:42:00 PM
Surr: Decachlorobiphenyl	105	30-150		%REC	10	2/25/2011 4:42:00 PM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-27
Collection Date: 2/16/2011 12:17:00 PM
Collection Time:
Client Sample ID: 091503-P17-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1221	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1232	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1242	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1248	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1254	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1260	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1262	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Aroclor 1268	ND	120		µg/Kg-dry	1	2/28/2011 10:39:00 AM
Surr: Tetrachloro-m-xylene	96.0	30-150		%REC	1	2/28/2011 10:39:00 AM
Surr: Decachlorobiphenyl	94.3	30-150		%REC	1	2/28/2011 10:39:00 AM

Lab ID: 1102044-28
Collection Date: 2/16/2011 12:18:00 PM
Collection Time:
Client Sample ID: 091503-P17-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1221	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1232	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1242	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1248	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1254	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1260	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1262	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Aroclor 1268	ND	640		µg/Kg-dry	10	2/25/2011 5:35:00 PM
Surr: Tetrachloro-m-xylene	115	30-150		%REC	10	2/25/2011 5:35:00 PM
Surr: Decachlorobiphenyl	116	30-150		%REC	10	2/25/2011 5:35:00 PM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-29
Collection Date: 2/16/2011 12:43:00 PM
Collection Time:
Client Sample ID: 091503-C10-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1248	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1254	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1260	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/25/2011 6:02:00 PM
Surr: Tetrachloro-m-xylene	110	30-150		%REC	10	2/25/2011 6:02:00 PM
Surr: Decachlorobiphenyl	108	30-150		%REC	10	2/25/2011 6:02:00 PM

Lab ID: 1102044-30
Collection Date: 2/16/2011 12:44:00 PM
Collection Time:
Client Sample ID: 091503-C10-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1248	1,100	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1254	1,100	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1260	ND	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/25/2011 6:28:00 PM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/25/2011 6:28:00 PM
Surr: Decachlorobiphenyl	106	30-150		%REC	10	2/25/2011 6:28:00 PM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-31
Collection Date: 2/16/2011 12:45:00 PM
Collection Time:
Client Sample ID: 091503-C10-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1248	3,200	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1254	2,800	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1260	790	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/25/2011 6:55:00 PM
Surr: Tetrachloro-m-xylene	100	30-150		%REC	10	2/25/2011 6:55:00 PM
Surr: Decachlorobiphenyl	112	30-150		%REC	10	2/25/2011 6:55:00 PM

Lab ID: 1102044-32
Collection Date: 2/16/2011 12:58:00 PM
Collection Time:
Client Sample ID: 091503-C9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1248	4,700	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1254	3,200	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1260	1,300	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/25/2011 7:21:00 PM
Surr: Tetrachloro-m-xylene	99.1	30-150		%REC	10	2/25/2011 7:21:00 PM
Surr: Decachlorobiphenyl	124	30-150		%REC	10	2/25/2011 7:21:00 PM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-33
Collection Date: 2/16/2011 12:59:00 PM
Collection Time:
Client Sample ID: 091503-C9-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1248	3,300	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1254	2,500	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1260	870	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/25/2011 7:48:00 PM
Surr: Tetrachloro-m-xylene	107	30-150		%REC	10	2/25/2011 7:48:00 PM
Surr: Decachlorobiphenyl	107	30-150		%REC	10	2/25/2011 7:48:00 PM

Lab ID: 1102044-34
Collection Date: 2/16/2011 1:12:00 PM
Collection Time:
Client Sample ID: 091503-C8-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1248	4,700	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1254	4,600	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1260	1,800	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/25/2011 8:14:00 PM
Surr: Tetrachloro-m-xylene	104	30-150		%REC	10	2/25/2011 8:14:00 PM
Surr: Decachlorobiphenyl	124	30-150		%REC	10	2/25/2011 8:14:00 PM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-35
Collection Date: 2/16/2011 1:13:00 PM
Collection Time:
Client Sample ID: 091503-C8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1248	9,400	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1254	8,800	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1260	2,500	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/25/2011 8:41:00 PM
Surr: Tetrachloro-m-xylene	91.3	30-150		%REC	10	2/25/2011 8:41:00 PM
Surr: Decachlorobiphenyl	84.4	30-150		%REC	10	2/25/2011 8:41:00 PM

Lab ID: 1102044-36
Collection Date: 2/16/2011 1:14:00 PM
Collection Time:
Client Sample ID: 091503-C8-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1248	3,400	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1254	3,500	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1260	980	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/25/2011 9:07:00 PM
Surr: Tetrachloro-m-xylene	96.4	30-150		%REC	10	2/25/2011 9:07:00 PM
Surr: Decachlorobiphenyl	134	30-150		%REC	10	2/25/2011 9:07:00 PM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102044-37 **Collection Date:** 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-C8-S20 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1221	ND	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1232	ND	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1242	ND	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1248	3,100	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1254	3,800	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1260	1,100	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1262	ND	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Aroclor 1268	ND	580		µg/Kg-dry	10	2/25/2011 9:33:00 PM
Surr: Tetrachloro-m-xylene	102	30-150		%REC	10	2/25/2011 9:33:00 PM
Surr: Decachlorobiphenyl	109	30-150		%REC	10	2/25/2011 9:33:00 PM

Lab ID: 1102044-38 **Collection Date:** 2/16/2011 1:32:00 PM
Collection Time:
Client Sample ID: 091503-P18-S1(0-0.5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1221	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1232	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1242	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1248	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1254	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1260	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1262	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Aroclor 1268	ND	520		µg/Kg-dry	10	2/26/2011 12:12:00 AM
Surr: Tetrachloro-m-xylene	106	30-150		%REC	10	2/26/2011 12:12:00 AM
Surr: Decachlorobiphenyl	102	30-150		%REC	10	2/26/2011 12:12:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-39
Collection Date: 2/16/2011 1:33:00 PM
Collection Time:
Client Sample ID: 091503-P18-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1221	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1232	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1242	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1248	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1254	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1260	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1262	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Aroclor 1268	ND	600		µg/Kg-dry	10	2/26/2011 2:23:00 AM
Surr: Tetrachloro-m-xylene	109	30-150		%REC	10	2/26/2011 2:23:00 AM
Surr: Decachlorobiphenyl	108	30-150		%REC	10	2/26/2011 2:23:00 AM

Lab ID: 1102044-40
Collection Date: 2/16/2011 1:34:00 PM
Collection Time:
Client Sample ID: 091503-P18-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1221	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1232	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1242	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1248	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1254	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1260	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1262	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Aroclor 1268	ND	540		µg/Kg-dry	10	2/26/2011 2:50:00 AM
Surr: Tetrachloro-m-xylene	89.9	30-150		%REC	10	2/26/2011 2:50:00 AM
Surr: Decachlorobiphenyl	77.6	30-150		%REC	10	2/26/2011 2:50:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102044-41 **Collection Date:** 2/16/2011 1:35:00 PM
Collection Time:
Client Sample ID: 091503-P18-S4(5-7) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1221	ND	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1232	ND	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1242	ND	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1248	2,700	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1254	3,800	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1260	1,200	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1262	ND	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Aroclor 1268	ND	530		µg/Kg-dry	10	2/26/2011 3:16:00 AM
Surr: Tetrachloro-m-xylene	146	30-150		%REC	10	2/26/2011 3:16:00 AM
Surr: Decachlorobiphenyl	143	30-150		%REC	10	2/26/2011 3:16:00 AM

Lab ID: 1102044-42 **Collection Date:** 2/16/2011 1:49:00 PM
Collection Time:
Client Sample ID: 091503-P20-S1(0-0.5) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1248	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1254	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1260	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/26/2011 3:42:00 AM
Surr: Tetrachloro-m-xylene	97.8	30-150		%REC	10	2/26/2011 3:42:00 AM
Surr: Decachlorobiphenyl	88.5	30-150		%REC	10	2/26/2011 3:42:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-43
Collection Date: 2/16/2011 1:50:00 PM
Collection Time:
Client Sample ID: 091503-P20-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1221	ND	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1232	ND	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1242	ND	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1248	2,300	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1254	3,200	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1260	950	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1262	ND	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Aroclor 1268	ND	590		µg/Kg-dry	10	2/26/2011 4:09:00 AM
Surr: Tetrachloro-m-xylene	98.4	30-150		%REC	10	2/26/2011 4:09:00 AM
Surr: Decachlorobiphenyl	116	30-150		%REC	10	2/26/2011 4:09:00 AM

Lab ID: 1102044-44
Collection Date: 2/16/2011 1:51:00 PM
Collection Time:
Client Sample ID: 091503-P20-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: KA
Aroclor 1016	ND	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1221	ND	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1232	ND	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1242	ND	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1248	2,000	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1254	2,600	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1260	790	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1262	ND	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Aroclor 1268	ND	550		µg/Kg-dry	10	2/26/2011 4:35:00 AM
Surr: Tetrachloro-m-xylene	97.7	30-150		%REC	10	2/26/2011 4:35:00 AM
Surr: Decachlorobiphenyl	99.9	30-150		%REC	10	2/26/2011 4:35:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc. **Lab Order:** 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

Lab ID: 1102044-45 **Collection Date:** 2/16/2011 1:52:00 PM
Collection Time:
Client Sample ID: 091503-P20-S4(5-7) **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1221	ND	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1232	ND	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1242	ND	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1248	1,200	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1254	1,700	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1260	ND	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1262	ND	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Aroclor 1268	ND	560		µg/Kg-dry	10	2/26/2011 5:01:00 AM
Surr: Tetrachloro-m-xylene	101	30-150		%REC	10	2/26/2011 5:01:00 AM
Surr: Decachlorobiphenyl	104	30-150		%REC	10	2/26/2011 5:01:00 AM

Lab ID: 1102044-46 **Collection Date:** 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P20-S20 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCBS BY EPA8082		**SW8082**				Analyst: **KA**
Aroclor 1016	ND	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1221	ND	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1232	ND	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1242	ND	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1248	1,900	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1254	2,500	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1260	770	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1262	ND	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Aroclor 1268	ND	570		µg/Kg-dry	10	2/26/2011 5:28:00 AM
Surr: Tetrachloro-m-xylene	98.9	30-150		%REC	10	2/26/2011 5:28:00 AM
Surr: Decachlorobiphenyl	100	30-150		%REC	10	2/26/2011 5:28:00 AM

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21103** Batch ID: **21103** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 1:57:00 AM** Prep Date **2/22/11**

Client ID: Run ID: **GC-TRENT_110224A** SeqNo: **770993**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	13.27	0	µg/Kg	16	0	82.9	30	150	0			
Surr: Decachlorobiphenyl	14.77	0	µg/Kg	16	0	92.3	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21104** Batch ID: **21104** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 3:19:00 AM** Prep Date **2/22/11**

Client ID: Run ID: **GC-TRENT_110224A** SeqNo: **770996**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	14.65	0	µg/Kg	16	0	91.5	30	150	0			
Surr: Decachlorobiphenyl	14.5	0	µg/Kg	16	0	90.6	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21107** Batch ID: **21107** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 1:33:00 PM** Prep Date **2/23/11**

Client ID: Run ID: **GC-ELVIS_110225A** SeqNo: **771095**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	15.76	0	µg/Kg	16	0	98.5	30	150	0			
Surr: Decachlorobiphenyl	15.47	0	µg/Kg	16	0	96.7	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21108** Batch ID: **21108** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 2:52:00 PM** Prep Date **2/23/11**

Client ID: Run ID: **GC-ELVIS_110225A** SeqNo: **771098**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	ND	50	µg/Kg									
Aroclor 1221	ND	50	µg/Kg									
Aroclor 1232	ND	50	µg/Kg									
Aroclor 1242	ND	50	µg/Kg									
Aroclor 1248	ND	50	µg/Kg									
Aroclor 1254	ND	50	µg/Kg									
Aroclor 1260	ND	50	µg/Kg									
Aroclor 1262	ND	50	µg/Kg									
Aroclor 1268	ND	50	µg/Kg									
Surr: Tetrachloro-m-xylene	15.34	0	µg/Kg	16	0	95.9	30	150	0			
Surr: Decachlorobiphenyl	15.01	0	µg/Kg	16	0	93.8	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21103** Batch ID: **21103** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 2:24:00 AM** Prep Date **2/22/11**
Client ID: Run ID: **GC-TRENT_110224A** SeqNo: **770994**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	862.6	50	µg/Kg	1000	0	86.3	70.9	125	0			
Aroclor 1260	838.3	50	µg/Kg	1000	0	83.8	60.1	126	0			
Surr: Tetrachloro-m-xylene	15.77	0	µg/Kg	16	0	98.6	30	150	0			
Surr: Decachlorobiphenyl	15.88	0	µg/Kg	16	0	99.2	30	150	0			

Sample ID **LCSD-21103** Batch ID: **21103** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 2:52:00 AM** Prep Date **2/22/11**
Client ID: Run ID: **GC-TRENT_110224A** SeqNo: **770995**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	800.3	50	µg/Kg	1000	0	80	70.9	125	862.6	7.49	50	
Aroclor 1260	752.6	50	µg/Kg	1000	0	75.3	60.1	126	838.3	10.8	50	
Surr: Tetrachloro-m-xylene	15.27	0	µg/Kg	16	0	95.4	30	150	0	0	0	
Surr: Decachlorobiphenyl	14.29	0	µg/Kg	16	0	89.3	30	150	0	0	0	

Sample ID **LCS-21104** Batch ID: **21104** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 3:46:00 AM** Prep Date **2/22/11**
Client ID: Run ID: **GC-TRENT_110224A** SeqNo: **770997**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	824.6	50	µg/Kg	1000	0	82.5	70.9	125	0			
Aroclor 1260	815.1	50	µg/Kg	1000	0	81.5	60.1	126	0			
Surr: Tetrachloro-m-xylene	16.83	0	µg/Kg	16	0	105	30	150	0			
Surr: Decachlorobiphenyl	15.22	0	µg/Kg	16	0	95.1	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-21104** Batch ID: **21104** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 4:13:00 AM** Prep Date **2/22/11**
Client ID: Run ID: **GC-TRENT_110224A** SeqNo: **770998**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	798.6	50	µg/Kg	1000	0	79.9	70.9	125	824.6	3.2	50	
Aroclor 1260	732.7	50	µg/Kg	1000	0	73.3	60.1	126	815.1	10.6	50	
Surr: Tetrachloro-m-xylene	15.03	0	µg/Kg	16	0	93.9	30	150	0	0	0	
Surr: Decachlorobiphenyl	14.06	0	µg/Kg	16	0	87.9	30	150	0	0	0	

Sample ID **LCS-21107** Batch ID: **21107** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 1:59:00 PM** Prep Date **2/23/11**
Client ID: Run ID: **GC-ELVIS_110225A** SeqNo: **771096**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	931.1	50	µg/Kg	1000	0	93.1	70.9	125	0			
Aroclor 1260	950.1	50	µg/Kg	1000	0	95	60.1	126	0			
Surr: Tetrachloro-m-xylene	16.18	0	µg/Kg	16	0	101	30	150	0			
Surr: Decachlorobiphenyl	16.21	0	µg/Kg	16	0	101	30	150	0			

Sample ID **LCSD-21107** Batch ID: **21107** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 2:26:00 PM** Prep Date **2/23/11**
Client ID: Run ID: **GC-ELVIS_110225A** SeqNo: **771097**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	1038	50	µg/Kg	1000	0	104	70.9	125	931.1	10.9	50	
Aroclor 1260	1066	50	µg/Kg	1000	0	107	60.1	126	950.1	11.5	50	
Surr: Tetrachloro-m-xylene	17.2	0	µg/Kg	16	0	108	30	150	0	0	0	
Surr: Decachlorobiphenyl	16.51	0	µg/Kg	16	0	103	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1102044
Project: 09150-3 Moran Terminal - AUL Drilling

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21108** Batch ID: **21108** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 3:19:00 PM** Prep Date **2/23/11**
Client ID: Run ID: **GC-ELVIS_110225A** SeqNo: **771099**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	1002	50	µg/Kg	1000	0	100	70.9	125	0			
Aroclor 1260	1029	50	µg/Kg	1000	0	103	60.1	126	0			
Surr: Tetrachloro-m-xylene	16.08	0	µg/Kg	16	0	100	30	150	0			
Surr: Decachlorobiphenyl	15.21	0	µg/Kg	16	0	95.1	30	150	0			

Sample ID **LCSD-21108** Batch ID: **21108** Test Code: **SW8082** Units: **µg/Kg** Analysis Date **2/25/11 3:49:00 PM** Prep Date **2/23/11**
Client ID: Run ID: **GC-ELVIS_110225A** SeqNo: **771100**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	993.4	50	µg/Kg	1000	0	99.3	70.9	125	1002	0.854	50	
Aroclor 1260	1013	50	µg/Kg	1000	0	101	60.1	126	1029	1.59	50	
Surr: Tetrachloro-m-xylene	15.28	0	µg/Kg	16	0	95.5	30	150	0	0	0	
Surr: Decachlorobiphenyl	15.4	0	µg/Kg	16	0	96.2	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-01
Collection Date: 2/16/2011 9:03:00 AM
Collection Time:
Client Sample ID: 091503-EF8-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.2	0		wt%	1	2/17/2011

Lab ID: 1102044-02
Collection Date: 2/16/2011 9:04:00 AM
Collection Time:
Client Sample ID: 091503-EF8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	6.9	0		wt%	1	2/17/2011

Lab ID: 1102044-03
Collection Date: 2/16/2011 9:05:00 AM
Collection Time:
Client Sample ID: 091503-EF8-S3(3-3.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.3	0		wt%	1	2/17/2011

Lab ID: 1102044-04
Collection Date: 2/16/2011 9:56:00 AM
Collection Time:
Client Sample ID: 091503-A12-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.1	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-05
Collection Date: 2/16/2011 9:57:00 AM
Collection Time:
Client Sample ID: 091503-A12-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.0	0		wt%	1	2/17/2011

Lab ID: 1102044-06
Collection Date: 2/16/2011 9:58:00 AM
Collection Time:
Client Sample ID: 091503-A12-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.2	0		wt%	1	2/17/2011

Lab ID: 1102044-07
Collection Date: 2/16/2011 9:59:00 AM
Collection Time:
Client Sample ID: 091503-A12-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	21.0	0		wt%	1	2/17/2011

Lab ID: 1102044-08
Collection Date: 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-A12-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	7.9	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-09
Collection Date: 2/16/2011 10:07:00 AM
Collection Time:
Client Sample ID: 091503-P15-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.6	0		wt%	1	2/17/2011

Lab ID: 1102044-10
Collection Date: 2/16/2011 10:08:00 AM
Collection Time:
Client Sample ID: 091503-P15-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.2	0		wt%	1	2/17/2011

Lab ID: 1102044-11
Collection Date: 2/16/2011 10:09:00 AM
Collection Time:
Client Sample ID: 091503-P15-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.1	0		wt%	1	2/17/2011

Lab ID: 1102044-12
Collection Date: 2/16/2011 10:45:00 AM
Collection Time:
Client Sample ID: 091503-P16-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.4	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-13
Collection Date: 2/16/2011 10:46:00 AM
Collection Time:
Client Sample ID: 091503-P16-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.8	0		wt%	1	2/17/2011

Lab ID: 1102044-14
Collection Date: 2/16/2011 10:47:00 AM
Collection Time:
Client Sample ID: 091503-P16-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.7	0		wt%	1	2/17/2011

Lab ID: 1102044-15
Collection Date: 2/16/2011 10:48:00 AM
Collection Time:
Client Sample ID: 091503-P16-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	17.7	0		wt%	1	2/17/2011

Lab ID: 1102044-16
Collection Date: 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P16-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.6	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-17
Client Sample ID: 091503-B11-S1(0-0.5)
Collection Date: 2/16/2011 11:21:00 AM
Collection Time:
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.3	0		wt%	1	2/17/2011

Lab ID: 1102044-18
Client Sample ID: 091503-B11-S2(1-3)
Collection Date: 2/16/2011 11:22:00 AM
Collection Time:
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	18.1	0		wt%	1	2/17/2011

Lab ID: 1102044-19
Client Sample ID: 091503-P13-S1(0-0.5)
Collection Date: 2/16/2011 11:38:00 AM
Collection Time:
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.5	0		wt%	1	2/17/2011

Lab ID: 1102044-20
Client Sample ID: 091503-P13-S2(1-3)
Collection Date: 2/16/2011 11:39:00 AM
Collection Time:
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	33.6	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-21
Collection Date: 2/16/2011 11:40:00 AM
Collection Time:
Client Sample ID: 091503-P13-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	9.5	0		wt%	1	2/17/2011

Lab ID: 1102044-22
Collection Date: 2/16/2011 11:46:00 AM
Collection Time:
Client Sample ID: 091503-B10-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	9.3	0		wt%	1	2/17/2011

Lab ID: 1102044-23
Collection Date: 2/16/2011 11:47:00 AM
Collection Time:
Client Sample ID: 091503-B10-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	9.7	0		wt%	1	2/17/2011

Lab ID: 1102044-24
Collection Date: 2/16/2011 11:48:00 AM
Collection Time:
Client Sample ID: 091503-B10-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	12.7	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-25
Collection Date: 2/16/2011 12:15:00 PM
Collection Time:
Client Sample ID: 091503-P17-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.3	0		wt%	1	2/17/2011

Lab ID: 1102044-26
Collection Date: 2/16/2011 12:16:00 PM
Collection Time:
Client Sample ID: 091503-P17-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	21.7	0		wt%	1	2/17/2011

Lab ID: 1102044-27
Collection Date: 2/16/2011 12:17:00 PM
Collection Time:
Client Sample ID: 091503-P17-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	59.9	0		wt%	1	2/17/2011

Lab ID: 1102044-28
Collection Date: 2/16/2011 12:18:00 PM
Collection Time:
Client Sample ID: 091503-P17-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	28.2	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-29
Collection Date: 2/16/2011 12:43:00 PM
Collection Time:
Client Sample ID: 091503-C10-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.3	0		wt%	1	2/17/2011

Lab ID: 1102044-30
Collection Date: 2/16/2011 12:44:00 PM
Collection Time:
Client Sample ID: 091503-C10-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.8	0		wt%	1	2/17/2011

Lab ID: 1102044-31
Collection Date: 2/16/2011 12:45:00 PM
Collection Time:
Client Sample ID: 091503-C10-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	17.7	0		wt%	1	2/17/2011

Lab ID: 1102044-32
Collection Date: 2/16/2011 12:58:00 PM
Collection Time:
Client Sample ID: 091503-C9-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.3	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-33
Collection Date: 2/16/2011 12:59:00 PM
Collection Time:
Client Sample ID: 091503-C9-S2(1-2.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.6	0		wt%	1	2/17/2011

Lab ID: 1102044-34
Collection Date: 2/16/2011 1:12:00 PM
Collection Time:
Client Sample ID: 091503-C8-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.2	0		wt%	1	2/17/2011

Lab ID: 1102044-35
Collection Date: 2/16/2011 1:13:00 PM
Collection Time:
Client Sample ID: 091503-C8-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.8	0		wt%	1	2/17/2011

Lab ID: 1102044-36
Collection Date: 2/16/2011 1:14:00 PM
Collection Time:
Client Sample ID: 091503-C8-S3(3-4.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.4	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-37
Collection Date: 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-C8-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	16.6	0		wt%	1	2/17/2011

Lab ID: 1102044-38
Collection Date: 2/16/2011 1:32:00 PM
Collection Time:
Client Sample ID: 091503-P18-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	8.5	0		wt%	1	2/17/2011

Lab ID: 1102044-39
Collection Date: 2/16/2011 1:33:00 PM
Collection Time:
Client Sample ID: 091503-P18-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	19.4	0		wt%	1	2/17/2011

Lab ID: 1102044-40
Collection Date: 2/16/2011 1:34:00 PM
Collection Time:
Client Sample ID: 091503-P18-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	13.1	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-41
Collection Date: 2/16/2011 1:35:00 PM
Collection Time:
Client Sample ID: 091503-P18-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	10.9	0		wt%	1	2/17/2011

Lab ID: 1102044-42
Collection Date: 2/16/2011 1:49:00 PM
Collection Time:
Client Sample ID: 091503-P20-S1(0-0.5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	11.8	0		wt%	1	2/17/2011

Lab ID: 1102044-43
Collection Date: 2/16/2011 1:50:00 PM
Collection Time:
Client Sample ID: 091503-P20-S2(1-3)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	15.8	0		wt%	1	2/17/2011

Lab ID: 1102044-44
Collection Date: 2/16/2011 1:51:00 PM
Collection Time:
Client Sample ID: 091503-P20-S3(3-5)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	14.3	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corp.

Date: *01-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 09150-3 Moran Terminal - AUL Drilling
Lab Order: 1102044

Lab ID: 1102044-45
Collection Date: 2/16/2011 1:52:00 PM
Collection Time:
Client Sample ID: 091503-P20-S4(5-7)
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	12.4	0		wt%	1	2/17/2011

Lab ID: 1102044-46
Collection Date: 2/16/2011 12:00:00 PM
Collection Time:
Client Sample ID: 091503-P20-S20
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		**D2216**				Analyst: **MG**
Percent Moisture	12.9	0		wt%	1	2/17/2011

AMRO Environmental Laboratories Corporation

111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 • FAX: (603) 429-8496
www.amrolabs.com

March 10, 2011

ANALYTICAL TEST RESULTS

Raymond Siegener
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
TEL: (781) 721-4098
FAX: (781) 721-4073

Subject: 091503 Moran Terminal

Workorder No.: 1103012

Dear Raymond Siegener:

AMRO Environmental Laboratories Corp. received 6 samples on 3/3/2011 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of 14 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001.

Hard copy of the State Certification is available upon request.

AMRO Environmental Laboratories Corp.

Date: *08-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 091503 Moran Terminal
Lab Order: 1103012
Date Received: 3/3/2011

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1103012-01A	091503-E8(MW)	3/2/2011	8:30 AM
1103012-02A	091503-AE8(MW)	3/2/2011	8:31 AM
1103012-03A	091503-F5(MW)	3/2/2011	9:45 AM
1103012-04A	091503-H5(MW)	3/2/2011	10:52 AM
1103012-05A	091503-J4(MW)	3/2/2011	11:50 AM
1103012-06A	091503-E3(MW)	3/2/2011	12:47 PM

AMRO Environmental Laboratories Corp.

10-Mar-11

Lab Order: 1103012
Client: GEI Consultants, Inc.
Project: 091503 Moran Terminal

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name / Preparatory Test Name	Prep Date	Analysis Date / Batch ID	TCLP Date
1103012-01A	091503-E8(MW)	3/2/2011 8:30:00 AM	Groundwater	EPA 8082 PCBS IN WATER		3/7/2011	
				EPA 3510 AQPREP SEP FUNNEL: PCB	3/7/2011	21130	
1103012-02A	091503-AE8(MW)	3/2/2011 8:31:00 AM		EPA 8082 PCBS IN WATER		3/7/2011	
					3/7/2011	21130	
1103012-03A	091503-F5(MW)	3/2/2011 9:45:00 AM		EPA 8082 PCBS IN WATER		3/7/2011	
					3/7/2011	21130	
1103012-04A	091503-H5(MW)	3/2/2011 10:52:00 AM		EPA 8082 PCBS IN WATER		3/7/2011	
					3/7/2011	21130	
1103012-05A	091503-J4(MW)	3/2/2011 11:50:00 AM		EPA 8082 PCBS IN WATER		3/7/2011	
					3/7/2011	21130	
1103012-06A	091503-E3(MW)	3/2/2011 12:47:00 PM		EPA 8082 PCBS IN WATER		3/7/2011	
					3/7/2011	21130	

Chain-of-Custody Record

Laboratory: AMRO

Laboratory Job # (Lab use only): 1103012

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: MORAN TERMINAL

Project Location: CHARLESTOWN MA

Project Number: 091503

Project Manager: C. JOHNSON

Page 1 of 1

Send Report to: Ray Seigener

Send EDD to: labdata@geiconsultants.com

MCP PRESUMPTIVE CERTAINTY REQUIRED – YES NO

If Yes, Are MCP Analytical Methods Required? YES NO NA

If Yes, Are Drinking Water Samples Submitted? YES NO NA

If Yes, Have You Met Minimum Field QC Requirements? YES NO NA

Samples Field Filtered: YES NO NA

Sampled Shipped With Ice: YES NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	Preservative: None	Analysis: * PCBs (8082)							Sample Specific Remarks
	091503-E8(MW)	3/2/11	0830	GW	2	CMM		X							
	091503-AE8(MW)	↓	0831	↓	↓	↓		↓							
	091503-F5(MW)	↓	0945	↓	↓	↓		↓							
	091503-H5(MW)	↓	1052	↓	↓	↓		↓							
	091503-J4(MW)	↓	1150	↓	↓	↓		↓							
	091503-C3(MW)	↓	1247	↓	↓	↓		↓							

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. C. Malagnda	3/2/11	1430	1. GEI FRIDGE
2. GEI Fridge	3/3/11	1030	2. Ray Sei
3. Ray Sei	3/3/11	1030	3. W. Lawson
4. W. Lawson	3/3/11	1135	4.

Turnaround Time (Business days):

Normal ____ Other ____

10-Day ____ 7-Day ____

5-Day X 3-Day ____

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

* MANUAL SOXHLET EXTRACTION REQUIRED.

AMRO Environmental Laboratories Corporation

SAMPLE RECEIPT CHECKLIST

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Client: GEI
Project Name: 091503 Moran Terminal
Ship via: (circle one) Fed Ex., UPS (AMRO Courier)
Hand Del., Other Courier, Other:

AMRO ID: 1103062
Date Rec.: 3-3-11
Date Due: 3-10-11

Items to be Checked Upon Receipt	Yes	No	NA	Comments
1. Army Samples received in individual plastic bags?			✓	
2. Custody Seals present?			✓	
3. Custody Seals Intact?			✓	
4. Air Bill included in folder if received?			✓	
5. Is COC included with samples?	✓			
6. Is COC signed and dated by client?	✓			
7. Laboratory receipt temperature. TEMP = 5°C				
Samples rec. with ice ✓ ice packs___ neither___				
8. Were samples received the same day they were sampled?		✓		
Is client temperature = or <6°C ?	✓			
If no obtain authorization from the client for the analyses.				
Client authorization from: Date: Obtained by:				
9. Is the COC filled out correctly and completely?	✓			
10. Does the info on the COC match the samples?	✓			
11. Were samples rec. within holding time?	✓			
12. Were all samples properly labeled?	✓			
13. Were all samples properly preserved?	✓			
14. Were proper sample containers used?	✓			
15. Were all samples received intact? (none broken or leaking)	✓			
16. Were VOA vials rec. with no air bubbles?			✓	
17. Were the sample volumes sufficient for requested analysis?	✓			
18. Were all samples received?	✓			
19. VPH and VOA Soils only:			✓	
Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)				
Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk				
If M or SB:				
Does preservative cover the soil?				
If NO then client must be faxed.				
Does preservation level come close to the fill line on the vial?				
If NO then client must be faxed.				
Were vials provided by AMRO?				
If NO then weights MUST be obtained from client				
Was dry weight aliquot provided?				
If NO then fax client and inform the VOA lab ASAP.				
20. Subcontracted Samples:			✓	
What samples sent:				
Where sent:				
Date:				
Analysis:				
TAT:				
21. Information entered into:			✓	
Internal Tracking Log?	✓			
Dry Weight Log?			✓	
Client Log?				
Composite Log?			✓	
Filtration Log?			✓	

Received By: AO Date: 3-3-11 Logged in By: AO Date: 3-3-11
Labeled By: SK Date: 3-3-11 Checked By: AO Date: 3-3-11

NA= Not Applicable

AMRO Environmental
Laboratories Corporation

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Please Circle if:
Sample= Soil
Sample= Waste

AMRO ID: 1103012

Sample ID	Analysis	Volume Sample	Preserv. Listed	Initial pH*	Acceptable? Y or N	List Preserv. Added by AMRO	Solution ID # of Preserv.	Volume Preservative Added	Final adjusted pH	Final adjusted pH (after 16 or 24 hours)
01 → 06	PCB	2x1LA	None	7	Y					

** = if the laboratory preserves the drinking water sample (s) for EPA Method 200 series, sample (s) should be held at least 16 hours prior to analysis or 24 hours for water sample (s).*

pH Checked By: SK Date: 3-3-11 pH adjusted By: _____ Date: _____

pH Checked By: _____ Date: _____ pH adj.(16 or 24hrs)By: _____ Date: _____

CASE NARRATIVE

PCBs:

1. No QC deviations were noted.

MassDEP Analytical Protocol Certification Form

Laboratory Name: AMRO Environmental Lab. Corp. Project #: 091503

Project Location: Moran Terminal RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
1103012 -01 → -06

Matrices: Groundwater/Surface Water ✓ Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB ✓ CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No N/A Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	(Yes) No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Nancy Stewart Position: Vice President

Printed Name: Nancy Stewart Date: 3-10-11

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

AMRO Environmental Laboratories Corp.

Date: *10-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 091503 Moran Terminal
Lab Order: 1103012

Lab ID: 1103012-01
Collection Date: 3/2/2011 8:30:00 AM
Collection Time:
Client Sample ID: 091503-E8(MW)
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY MCP METH SW8082						Analyst: KA
Aroclor 1262	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1268	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1016	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1221	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1232	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1242	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1248	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1254	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Aroclor 1260	ND	0.22		µg/L	1	3/7/2011 4:24:00 PM
Surr: Decachlorobiphenyl	89.2	30-150		%REC	1	3/7/2011 4:24:00 PM
Surr: Tetrachloro-m-xylene	76.8	30-150		%REC	1	3/7/2011 4:24:00 PM

Lab ID: 1103012-02
Collection Date: 3/2/2011 8:31:00 AM
Collection Time:
Client Sample ID: 091503-AE8(MW)
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY MCP METH SW8082						Analyst: KA
Aroclor 1262	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1268	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1016	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1221	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1232	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1242	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1248	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1254	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Aroclor 1260	ND	0.23		µg/L	1	3/7/2011 4:50:00 PM
Surr: Decachlorobiphenyl	87.8	30-150		%REC	1	3/7/2011 4:50:00 PM
Surr: Tetrachloro-m-xylene	76.5	30-150		%REC	1	3/7/2011 4:50:00 PM

AMRO Environmental Laboratories Corp.

Date: *10-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 091503 Moran Terminal
Lab Order: 1103012

Lab ID: 1103012-03
Collection Date: 3/2/2011 9:45:00 AM
Collection Time:
Client Sample ID: 091503-F5(MW)
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY MCP METH SW8082						Analyst: KA
Aroclor 1262	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1268	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1016	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1221	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1232	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1242	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1248	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1254	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Aroclor 1260	ND	0.21		µg/L	1	3/7/2011 5:17:00 PM
Surr: Decachlorobiphenyl	84.0	30-150		%REC	1	3/7/2011 5:17:00 PM
Surr: Tetrachloro-m-xylene	78.6	30-150		%REC	1	3/7/2011 5:17:00 PM

Lab ID: 1103012-04
Collection Date: 3/2/2011 10:52:00 AM
Collection Time:
Client Sample ID: 091503-H5(MW)
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY MCP METH SW8082						Analyst: KA
Aroclor 1262	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1268	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1016	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1221	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1232	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1242	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1248	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1254	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Aroclor 1260	ND	0.23		µg/L	1	3/7/2011 5:43:00 PM
Surr: Decachlorobiphenyl	57.6	30-150		%REC	1	3/7/2011 5:43:00 PM
Surr: Tetrachloro-m-xylene	64.7	30-150		%REC	1	3/7/2011 5:43:00 PM

AMRO Environmental Laboratories Corp.

Date: *10-Mar-11*

CLIENT: GEI Consultants, Inc.
Project: 091503 Moran Terminal
Lab Order: 1103012

Lab ID: 1103012-05
Collection Date: 3/2/2011 11:50:00 AM
Collection Time:
Client Sample ID: 091503-J4(MW)
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY MCP METH SW8082						Analyst: KA
Aroclor 1262	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1268	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1016	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1221	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1232	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1242	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1248	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1254	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Aroclor 1260	ND	0.23		µg/L	1	3/7/2011 6:10:00 PM
Surr: Decachlorobiphenyl	80.5	30-150		%REC	1	3/7/2011 6:10:00 PM
Surr: Tetrachloro-m-xylene	79.5	30-150		%REC	1	3/7/2011 6:10:00 PM

Lab ID: 1103012-06
Collection Date: 3/2/2011 12:47:00 PM
Collection Time:
Client Sample ID: 091503-E3(MW)
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS BY MCP METH SW8082						Analyst: KA
Aroclor 1262	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1268	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1016	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1221	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1232	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1242	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1248	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1254	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Aroclor 1260	ND	0.22		µg/L	1	3/7/2011 6:36:00 PM
Surr: Decachlorobiphenyl	94.0	30-150		%REC	1	3/7/2011 6:36:00 PM
Surr: Tetrachloro-m-xylene	83.8	30-150		%REC	1	3/7/2011 6:36:00 PM

AMRO Environmental Laboratories Corp.

Date: *08-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1103012
Project: 091503 Moran Terminal

QC SUMMARY REPORT

Method Blank

Sample ID **MB-21130** Batch ID: **21130** Test Code: **SW8082** Units: **µg/L** Analysis Date **3/7/11 3:05:00 PM** Prep Date **3/7/11**

Client ID: Run ID: **GC-ELVIS_110307A** SeqNo: **771670**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1262	ND	0.20	µg/L									
Aroclor 1268	ND	0.20	µg/L									
Aroclor 1016	ND	0.20	µg/L									
Aroclor 1221	ND	0.20	µg/L									
Aroclor 1232	ND	0.20	µg/L									
Aroclor 1242	ND	0.20	µg/L									
Aroclor 1248	ND	0.20	µg/L									
Aroclor 1254	ND	0.20	µg/L									
Aroclor 1260	ND	0.20	µg/L									
Surr: Decachlorobiphenyl	0.05772	0	µg/L	0.064	0	90.2	30	150	0			
Surr: Tetrachloro-m-xylene	0.0484	0	µg/L	0.064	0	75.6	30	150	0			

Qualifiers: ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
NA - Not applicable where J values or ND results occur
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.

AMRO Environmental Laboratories Corp.

Date: *08-Mar-11*

CLIENT: GEI Consultants, Inc.
Work Order: 1103012
Project: 091503 Moran Terminal

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-21130** Batch ID: **21130** Test Code: **SW8082** Units: **µg/L** Analysis Date **3/7/11 3:31:00 PM** Prep Date **3/7/11**
Client ID: Run ID: **GC-ELVIS_110307A** SeqNo: **771671**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	3.501	0.20	µg/L	4	0	87.5	51	125	0			
Aroclor 1260	3.518	0.20	µg/L	4	0	87.9	50	133	0			
Surr: Decachlorobiphenyl	0.06071	0	µg/L	0.064	0	94.9	30	150	0			
Surr: Tetrachloro-m-xylene	0.05738	0	µg/L	0.064	0	89.7	30	150	0			

Sample ID **LCSD-21130** Batch ID: **21130** Test Code: **SW8082** Units: **µg/L** Analysis Date **3/7/11 3:58:00 PM** Prep Date **3/7/11**
Client ID: Run ID: **GC-ELVIS_110307A** SeqNo: **771672**

Analyte	QC Sample Result	RL	Units	QC Spike Amount	Original Sample Result	%REC	LowLimit	HighLimit	Original Sample or MS Result	%RPD	RPDLimit	Qua
Aroclor 1016	3.624	0.20	µg/L	4	0	90.6	51	125	3.501	3.46	50	
Aroclor 1260	3.694	0.20	µg/L	4	0	92.3	50	133	3.518	4.89	50	
Surr: Decachlorobiphenyl	0.06279	0	µg/L	0.064	0	98.1	30	150	0	0	0	
Surr: Tetrachloro-m-xylene	0.05576	0	µg/L	0.064	0	87.1	30	150	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
RL - Reporting Limit; defined as the lowest concentration the laboratory can accurately quantitate.
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
NA - Not applicable where J values or ND results occur

Appendix F

IDW Hazardous Waste Manifest

TMC Services, Inc.
One William Way
Bellingham, MA 02019
TEL: (508) 966-3737 FAX: (508) 966-4861
www.hazmatt.com

Environmental	Construction	Abatement
Emergency Response	UST/AST Services	PCBs
Remediation Services	Demolition	Asbestos
Waste T&D	Site Construction Services	Lead
Lab Pack Services	Excavation	Microbial
Industrial Cleaning	Remedial Systems	Selective Demolition

Bill To:

GEI Consultants
400 Unicorn Park Drive
Woburn, MA 01801

Invoice ID: 64141
Invoice Date: June 30, 2011
Job #: 1011-391
Purchase Order #:
Work Order #:

Job Location:

Moran Terminal
100 Terminal Street
Charlestown, MA

Description	Quantity	Units	Rate	Amount
Drum Transportation & Disposal 6/9/11				
Box Truck & Driver	1.00	Stop	$275.00	$275.00
Disposal of PCB Impacted Material	3.00	Drum	$385.00	$1,155.00
		Amount Billed		$1,430.00
		Total Tax		
		AMOUNT DUE THIS INVOICE		**$1,430.00**

TMC Services, Inc. accepts MasterCard, Visa and American Express for payment.

Interest shall accrue at the rate of 1 1/2% per month on all amounts not paid within 15 days. The customer agrees to pay all costs of collection, including reasonable attorney's fees, in the event that this account is turned over to an attorney for collection.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAR000009845
2. Page 1 of 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 001525329 GBF

5. Generator's Name and Mailing Address
Massachusetts Port Authority
One Harborside Drive, Suite 207S
East Boston MA 02128-2909
Generator's Phone: 617 568-3514

Generator's Site Address (if different than mailing address)
Massachusetts Port Authority
100 Terminal Drive
Charlestown MA 02129

6. Transporter 1 Company Name: TMC Services, Inc.
U.S. EPA ID Number: MAR000502138

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
General Chemical Corporation
133-138 Leland Street
Framingham MA 01702
Facility's Phone: 508 872-5000
U.S. EPA ID Number: MAD019371079

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-regulated material, (Debris containing <50ppm PCB's from a source greater than 50) 80676-80678	XX3	DM	XXXX3	K	MA99
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
tmc PROJECT # 1011-391 NDG K3020
Order #: 64905

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Erik Bankey
Signature: Erik Bankey
Month 06 Day 09 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Chris Clark
Signature: [signature]
Month 06 Day 09 Year 11
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Brad Nelson
Signature: Brad Nelson
Month 6 Day 9 Year 11

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

Appendix G

Geophysical Survey Report

GEOPHYSICAL INVESTIGATION
MORAN TERMINAL
(FORMER SCHIAVONE PROPERTY
DISPOSAL SITE)
CHARLESTOWN, MASSACHUSETTS

Prepared for:

GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, Massachusetts 01801

Prepared by:

Hager GeoScience, Inc.
596 Main Street
Woburn, Massachusetts 01801-2924

File 2011010
April 2011

Hager GeoScience, Inc.

1.0 INTRODUCTION

This report details the results of a geophysical survey conducted by Hager GeoScience, Inc. (HGI) for GEI Consultants, Inc. (GEI) at the Moran Terminal in Charlestown, Massachusetts. The survey area was a portion of the terminal designated as the former Schiavone Property Disposal Site (the survey area). The objective of the geophysical survey was to locate any potential sources of continuing PCB contamination (USTs, drums, etc.).

2.0 DATA ACQUISITION

HGI personnel performed the survey over eight days during the period from March 21st through April 7th, 2011, using electromagnetic (EM) and ground penetrating radar (GPR) methods. HGI personnel collected geophysical data over an area of approximately 8.3 acres as specified by GEI during a site visit on March 10th and direction from a GEI site representative who met the HGI field crew at the site.

Based on the size of the survey area, as well as logistical and time constraints, EM was selected as the primary survey method. GPR was used in areas where EM data could not be collected, including those in close proximity to buildings or surface metal and ones with questionable satellite coverage for GPS streaming of EM data. GPR data were collected along orthogonal traverses spaced 2.5 to 5 feet apart, while EM data were collected along unidirectional traverses spaced approximately 5 feet apart. The geophysical techniques and their limitations are discussed in Section 6.

The locations of surface features as well as the survey traverses are shown on Plates 1, 3, and 5, AutoCAD maps created from the GEI base map “091503-02.dwg” and HGI field notes and GPS points. For better viewing of the survey grids and data interpretation, the plates are presented as three overlapping sections, designated HGI Sections 1 through 3.

2.1 EM

HGI collected EM data using a Geonics EM61-MK2 (EM61) high-powered time domain metal detector, which uses a single transmitting coil to induce secondary time-varying magnetic fields in metallic objects. Two receiving coils detect this secondary magnetic field, which is measured in millivolts (mV).

HGI used its Sokkia 2700ISX RTK GPS unit connected directly to the EM61 to maintain horizontal survey control and locate the position of EM data. GPS locations and simultaneous EM readings were streamed directly to an Allegro field PC to ensure data quality control, sufficient satellite connectivity, and location tracking. In addition to using the field PC to provide visualization of locations, HGI personnel laid out control lines using fiberglass tapes and spray paint to better ensure even line spacing.

All EM data were recorded and stored in the internal memory of the Allegro field PC and transferred to an HGI office computer for preliminary quality control and subsequent data processing.

2.2 GPR

The GPR survey was performed using a GSSI SIR-3000 digital ground penetrating radar acquisition system with a 500-MHz antenna and a survey wheel encoder for horizontal distance control. GPR data were displayed on a color monitor and simultaneously recorded on the system's flash memory. They were recorded with the acquisition time window set at 120 nanoseconds (ns). Because of the conductive subsurface conditions, the signal penetration was limited to approximately 5 feet.

Data from the survey were downloaded to a PC at the HGI office and analyzed using GSSI's RADAN for Windows XP™ software.

2.3 GPS

In addition to locating the EM61 survey points as described in Section 2.1, HGI's Sokkia 2700 ISX RTK unit was also used to locate the survey grids and surface features such as manholes, fire hydrants, and building corners. The Sokkia system provided a relative accuracy of less than 0.164 feet horizontally and 0.328 feet vertically for points in the Massachusetts State Plane coordinate system.

3.0 DATA REDUCTION AND ANALYSIS

3.1 EM

The EM data were downloaded to a PC, where NAVDAT61MK2® and DAT61MK2® software were used to reduce the data and adjust for survey geometry.

The readings taken by the EM61 are relative to a "normalized" value calibrated within the grid, and the values are in millivolts (mV). High-conductivity anomalies (orange or red) are typically associated with metal or iron-rich soils.

Filled color contour plots for the EM61 data were prepared using Golden Software's Surfer for Windows V9® with a kriging interpolation method. The differential channel (signal difference between the top and bottom coils) was exported from Surfer into AutoCAD as a .dxf file and saved as an AutoCAD drawing. The differential channel has the advantage of minimizing the effects of near-surface response and highlighting signals generated from larger deeper anomalies.

3.2 GPR

The downloaded GPR data were archived, processed, and analyzed using GSSI's RADAN for Windows XP™. Background removal, band-pass filters, and horizontal smoothing were performed as essential processing steps.

Prior to analysis, the raw GPR data required processing to reduce the detrimental effects of site-specific noise associated with interfering background frequency signals and the shallow water table. The processed records collected within the grid locations were then used to construct 3D models of the surveyed areas. 3D models are useful for viewing the spatial qualities of the data and identifying subtle spatial features that may not be apparent in individual 2D records. The 3D models are sliced horizontally and vertically to observe patterns of GPR anomalies present in the radar data.

Each 2D record was also evaluated for possible anomalies. Preliminary interpretations made from analysis of the individual 2D records were plotted and evaluated in a spatial context using the 3D models. Conversely, spatial anomalies observed in the 3D models were re-examined on the individual records to ensure that all possible anomalies were evaluated.

Variations in reflected signal amplitude and polarity, frequency, and other deviations from background signals were examined.

4.0 RESULTS

Plates 1, 3, and 5 show the locations of geophysical data collection as well as obstructions (magenta) where data could not be collected. The obstructions were the result of 1) onsite activities beyond the control of GEI at the time of collection, 2) surface features that could not be moved out of the survey area, or 3) surface metal that masked information at depth.

Plates 2, 4, and 6 show the results of the geophysical investigation. Colored contour plots are incorporated to illustrate the results of the EM survey and include the locations and magnitude (in mV) of anomalies. Analysis of EM data suggests that the noise level in the survey areas is on the order of 90mV, which is considered high. Background values (grey areas) are thus set to 90mV, with detectable increases in ferrous and non-ferrous materials shown as blue to magenta (1000mV). Higher mV response indicates an increase in the amount of detectable ferrous and non-ferrous materials.

HGI created a three-level priority list (High, Medium, and Low) for the observed EM anomalies. A priority scale was chosen to classify anomalies suited for further investigation via borings and/or test pits and is based on anomaly strength, geometry, and information provided by GEI. As the most likely source of ongoing contamination would be a concentration of USTs and/or drums, HGI based its High priority not only on anomalies with overall high signal strength (e.g.,

Anomaly M on Plate 4) but also on size (e.g., Anomaly D on Plate 2). It is possible that the low response of Anomaly D is caused by a more deeply buried high-response target. Medium-priority anomalies are those consisting of multiple medium-to-low response anomalies that are spatially limited relative to larger anomalies (e.g., Anomaly D) and/or are questionable as to being related to nearby utilities. Low-priority anomalies are those most likely associated with utilities or single targets least likely to be associated with significant sources of contamination.

In total, 24 EM anomalies (A through X) were detected. These are discussed and prioritized in Table 1.

In addition to the 24 discreet EM anomalies, multiple linear features were identifiable from the EM data; these are shown as dash-dot lines. HGI follows industry standards for utility color coding, and when an EM linear feature could be linked to a specific utility type, it is shown in the appropriate color (e.g., blue for water, red for electric). If the linear feature is of unknown origin, it is shown in purple.

GPR identified a multitude of shallow linear features, shown as solid, continuous lines. In addition to linear features, GPR also identified two discreet anomalies (Plate 6). However, based on the discussion in Section 5 below, these anomalies have a low confidence level.

5.0 SITE-SPECIFIC LIMITATIONS

The subsurface conditions of urban and dredge fill as described in boring logs collected by GEI ("GEI boring logs.PDF), as well as near-surface brackish ground water, limit the penetration depth and resolution capabilities of GPR at this site.

Typically GPR would be used to further characterize EM anomalies; however, focused GPR conducted over select targets (anomalies D, E, and F) showed that the site-specific subsurface conditions prevented GPR from augmenting EM interpretations.

The depths indicated on the map show the approximate depth to the top of the anomaly. Due to the conductive site conditions, the vertical extent of anomalies could not be determined.

As briefly discussed in Section 4, the EM noise level within the survey area was on the order of 90mV and is considered high. This has the effect of masking potential anomalies with an EM response less than or equal to 100mV. Targets with this response may be constructed of low-conductive materials and/or be buried at greater depths. The exact depth vs. detection thresh-hold cannot be determined within the survey area.

6.0 THE GEOPHYSICAL METHODS

6.1 EM Time Domain Metal Detection

Description of the Method. The time domain electromagnetic system includes a single transmitter coil and two receiver coils. A primary magnetic field, generated by an alternating current supplied to the transmitter coil, induces eddy currents in nearby metallic objects. These induced eddy currents decay at a rate dependent on the characteristics of the anomaly, which in turn produces a secondary magnetic field with the same rate of decay. The decay over time of the secondary magnetic field generates a signal within each of the two receiving coils, thereby confirming the presence of metal.

We collect EM time domain data using a Geonics EM61-MK2 high power system. The EM61-MK2 is a "coil over coil" system in which each coil measures 1x0.5 meters. Data can be collected in auto, wheel, or manual modes depending on the nature of the survey.

The Geonics EM61-MK2 Data Logging System consists of an Allegro Field PC computer, EM61MK2 data-logging program, and a cable to connect the Allegro to the Geonics EM61-MK2 instrument. The EM61MK2 program acquires and records survey data from the EM61-MK2 systems under the control of the operator. For in-field quality control and initial anomaly identification, the Allegro Field PC also provides a real-time visual display of the data in mV. Field information such as survey line number, starting station, increments, and comments are also recorded.

Common applications of the time domain metal detector include the detection of environmental hazards such as drums and underground storage tanks (USTs), utilities and infrastructure, construction and industrial waste, and unexploded ordnance (UXO).

Depending on the nature of the anomaly (size, depth, magnetic susceptibility), its signal falls within an expected voltage reading. At sites free of metal objects and other cultural interference, USTs due to their size, shape, and composition tend to produce readings several thousands of mV higher than the non-ferrous background. This significant contrast to the background makes for rapid data analysis and detection of USTs and other large targets. However, if the target is small and/or has a weak signal response, such as that produced by many UXOs, significant time is required to process and analyze the data.

Data Analysis and Interpretation. The EM data are downloaded to a PC, where NAVDAT61MK2 and DAT61MK2 software are used to reduce the data and adjust for survey geometry.

Filled color contour plots for the EM61 data are prepared using Golden Software's Surfer for Windows V9 with a kriging interpolation method and imported into AutoCAD as a .dxf file.

Limitations of the Method. EM voltage readings are influenced by proximity to surface metal objects such as fences, vehicles, reinforced concrete, or buildings that may produce spurious signals unrelated to the presence of buried targets.

Subsurface environments containing high concentrations of ferrous materials can decrease the contrast between the background signal and that produced by a target such a UST, making its detection more complex. Also, larger buried pieces of metal, such as scrap metal or buried metal debris, may produce signals similar to those of the target subject and thus produce false positives-

6.2 Ground Penetrating Radar

Description of the Method. The principle of ground penetrating radar (GPR) is the same as that used by police radar, except that GPR transmits electromagnetic energy into the ground. The energy is reflected back to the surface from interfaces between materials with contrasting electrical (dielectric and conductivity) and physical properties. The greater the contrast between two materials in the subsurface, the stronger the reflection observed on the GPR record. The depth of GPR signal penetration depends on the properties of the subsurface materials and the frequency of the antenna used to collect radar data. The lower the antenna frequency, the greater the signal penetration, but the lower the signal resolution.

Data Collection. GPR data are collected using a Geophysical Survey Systems (GSSI) SIR-2, -2000, or -3000 ground penetrating radar acquisition system. GPR data are digitally recorded on the internal hard drive or flash memory of the system. System controls allow the GPR operator to filter out noise, attributed to both coupling noise, caused by conductive soil conditions, spurious noise caused by local EMF fields and internal system noise. For shallow surveys, we use 2000-, 1500-, 900-, 500-, or 400-megahertz (MHz) antennas. For deeper penetration, we use lower frequency antennas ranging from 200 MHz to 15 MHz, depending on the anticipated depth of the target(s) and the degree of signal penetration. All of these antenna configurations can be used to collect data in continuous mode, distance mode, or as discrete point measurements using signal-stacking techniques. Since there is a trade-off between signal penetration and resolution, test lines are sometimes collected using antennas of several different frequencies and then using the highest frequency antenna that produces the highest quality data. In some cases, data are collected with multiple antennas.

The horizontal scale of the GPR record shows distance along the survey traverse. In the continuous data collection mode, the horizontal scale on each GPR record is determined by the antenna speed along the surface. When a survey wheel is used, the GPR system records data with a fixed number of traces per unit distance and the system automatically marks the GPR record at specified distance intervals along the survey line.

The vertical scale of the radar record is determined by the velocity of the transmitted signal in the media under study and the range setting or recording time window of the GPR system. The recording time interval, or range, represents the maximum two-way travel time during which data are recorded. The conversion of the transmitted signal's two-way travel time to depth is determined by the propagation velocity of the GPR signal, which is site (media) specific. When little or no information is available about the makeup of subsurface materials, we estimate propagation velocities from handbook values and experience at similar sites or by CDP velocity surveys with a bi-static antenna.

Data Processing. After completion of data collection, the GPR data are transferred to a PC for review and processing using RADAN for Windows XP™ software. When appropriate, we prepare 3D models of GPR data, which can be sliced in the X, Y, and Z directions.

The size, shape, and amplitude of GPR reflections are used to interpret GPR data. Metallic USTs and utilities produce reflections with high amplitude and distinctive hyperbolic shapes. Clay, concrete pipes, boulders, etc. may produce radar signatures of similar shape but lower amplitude. The boundaries between saturated and unsaturated materials such as sand and clay, bedrock and overburden, generally also produce strong reflections.

Limitations of the Method. GPR signal penetration is site-specific and is determined by the dielectric properties of local soil and fill materials. GPR signals propagate well in resistive materials such as sand and gravel; however, soils containing clay, ash- or cinder-laden fill or fill saturated with brackish or otherwise electrically conductive groundwater cause GPR signal attenuation and loss of target resolution. Concrete containing rebar or wire mesh also inhibits signal penetration.

The interpreted depths of objects detected using GPR are based on on-site calibration, handbook values, and/or estimated GPR signal propagation velocities from similar sites. GPR velocities and depth estimates may vary if the medium under investigation or soil water content is not uniform throughout the site.

Utilities are interpreted on the basis of reflections of similar size and depth that exhibit a linear trend; however, GPR cannot unambiguously determine that all such reflectors are related. Fiberglass UST's or utilities composed of plastic or clay may be difficult to detect if situated in soils with similar electromagnetic properties, or if situated in fill with other reflecting targets that generate "clutter" or signal scattering that obscures deeper reflectors. Objects buried beneath reinforced concrete pads or slabs may also be difficult, but possible, to detect.

Changes in the speed at which the GPR antenna is moved along the surface cause slight variations in the horizontal scale of the recorded traverse. Distance interpolation may be performed to minimize the error in interpreted object positions. The variation in the horizontal scale of the GPR record may be controlled, to a certain extent, with a distance encoder or survey

wheel. The GPR antenna produces a cone-shaped signal pattern that emanates approximately 45 degrees from horizontal in front and back of the antenna. Therefore, buried objects may be detected before the antenna is located directly over them. GPR anomalies may appear larger than actual target dimensions.

GPR interpretation is subjective and based on the identification of reflection patterns that do not uniquely identify a subsurface target. Borings, test pits, site utility plans and other ground-truth are recommended to verify the interpreted GPR results.

6.3 RTK GNSS GLOBAL POSITIONING SYSTEM (GPS)

Description of the Method. The RTK GPS system consists of a base (reference) receiver and a roving receiver. The base receiver remains stationary during a survey and is mounted on a tribrach and tripod. A rover receiver is used to record points remotely and can be mounted on a rod, vehicle, or other object. The base provides real-time corrections to the rover over a radio connection. The system can produce accuracy on a centimeter scale, but the level of accuracy depends on factors that include the geometry of the transmitting satellites and the receivers' view of the horizons (e.g., the density of buildings and trees). The data can be collected as quickly as 1 Hz or 1 reading per second.

Data Collection. We perform our GPS surveys using a Sokkia GNSS RTK 2700 ISX. The base station can be set up over a known or unknown point, with the position taken from satellite information. Once the system has achieved a fixed solution for the rover receiver, data points can be collected with survey grade (centimeter-scale) precision. When GPS points are being collected on a site where the fixed solution is constantly lost and gained, points are checked multiple times for precision. All data points are saved to an Allegro CX field computer.

Data Processing. The GPS data are corrected automatically by the base receiver in the field prior to being recorded. If the base station is located on an unknown point that is later defined, the GPS data can be corrected in the office to fit the real world coordinates.

Limitations of the Method. The quality of the GPS signal is site-specific. The base and rover receiver need to have clear views of the horizon and good satellite geometry to achieve the highest level of accuracy and precision. Although a fixed solution can be achieved in wooded environments or sites with taller buildings, it may take more time to achieve the solutions, the fixed solution may be lost frequently when moving the rover, and in some cases the fixed solution may be wrong. Each of these situations requires longer times to locate data points accurately and precisely. In cases such as when the point is too close to a building, beneath a building overhang, under a tree, or obscured by some other object, a fixed solution may not be possible.

When the base station is set up over an unknown point, the location of survey data can be several

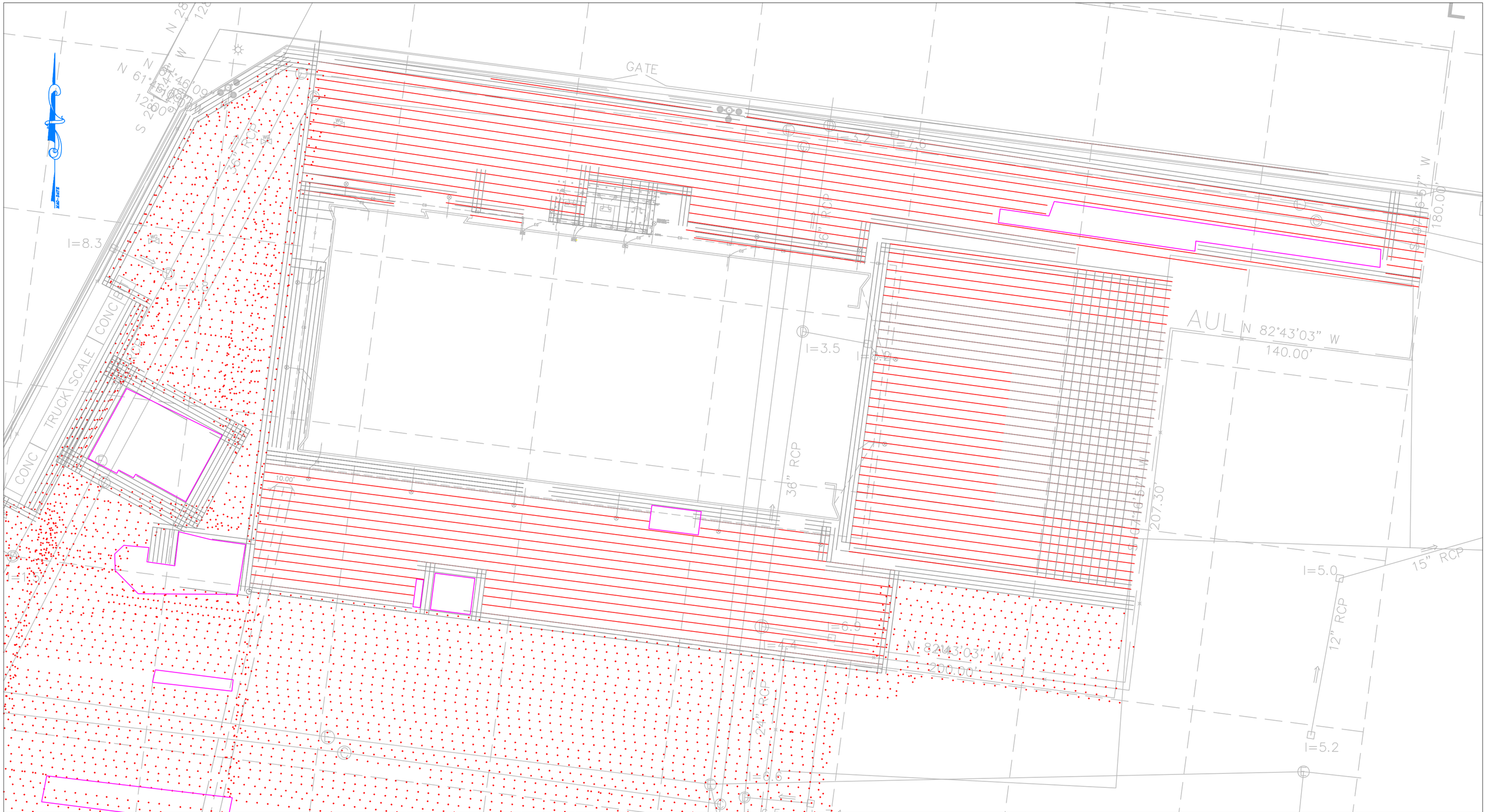
tens of meters or more from the real world location. The data points will have survey grade precision relative to the location of the base station and other data points, but will have a real-world accuracy discrepancy.

HGI does not guarantee a survey-quality map from its GPS data. If survey-level accuracy is critical for a project, we recommend using professional surveyors to locate the geophysical survey points

Table 1
EM Anomaly Description and Priority Table

ID	Description	Priority
A	Multiple high-response targets potentially related to adjacent utilities	Low
B	Single high-response target potentially related to adjacent utilities	Low
C	Multiple low-response targets potentially related to adjacent utilities	Low
D	Large area of multiple targets	High
E	Area of multiple low response targets	High
F	Bi-directional anomaly potentially related to utilities and unknown discontinuous targets	Medium
G	Area of multiple low-response targets	High
H	Area of multiple low-response targets	High
I	Multiple low-response targets potentially related to adjacent utilities	Low
J	Single high-response target	Low
K	Multiple low-response targets potentially related to adjacent utilities	Low
L	Multiple high- and low-response targets potentially related to nearby utilities	Medium
M	High- and medium-response targets	High
N	Multiple low-response targets	Medium
O	Multiple low-response targets	Medium
P	Multiple low- and medium-response targets	High
Q	Multiple low-response targets	Medium
R	Single low-response target	Low
S	Single high-response target	Low
T	Single high-response target	Low
U	Unidentified catch basins	Low
V	Unidentified bollard	Low
W	Unidentified catch basin	Low
X	Two high-response targets	Medium

Total High Priority Anomalies	6
Total Medium Priority Anomalies	6
Total Low Priority Anomalies	12



LEGEND

GPR Traverse

EM61 Data Point / Traverse

Obstruction

Notes:

1.) The base map "091503-02.dwg" was provided by GEI.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The EM data point presented indicates the location of every fifth (5th) data point.
5.) EM data were collected with subfoot GPS streaming or HGI established grid.

0 20 40 80

Scale in Feet

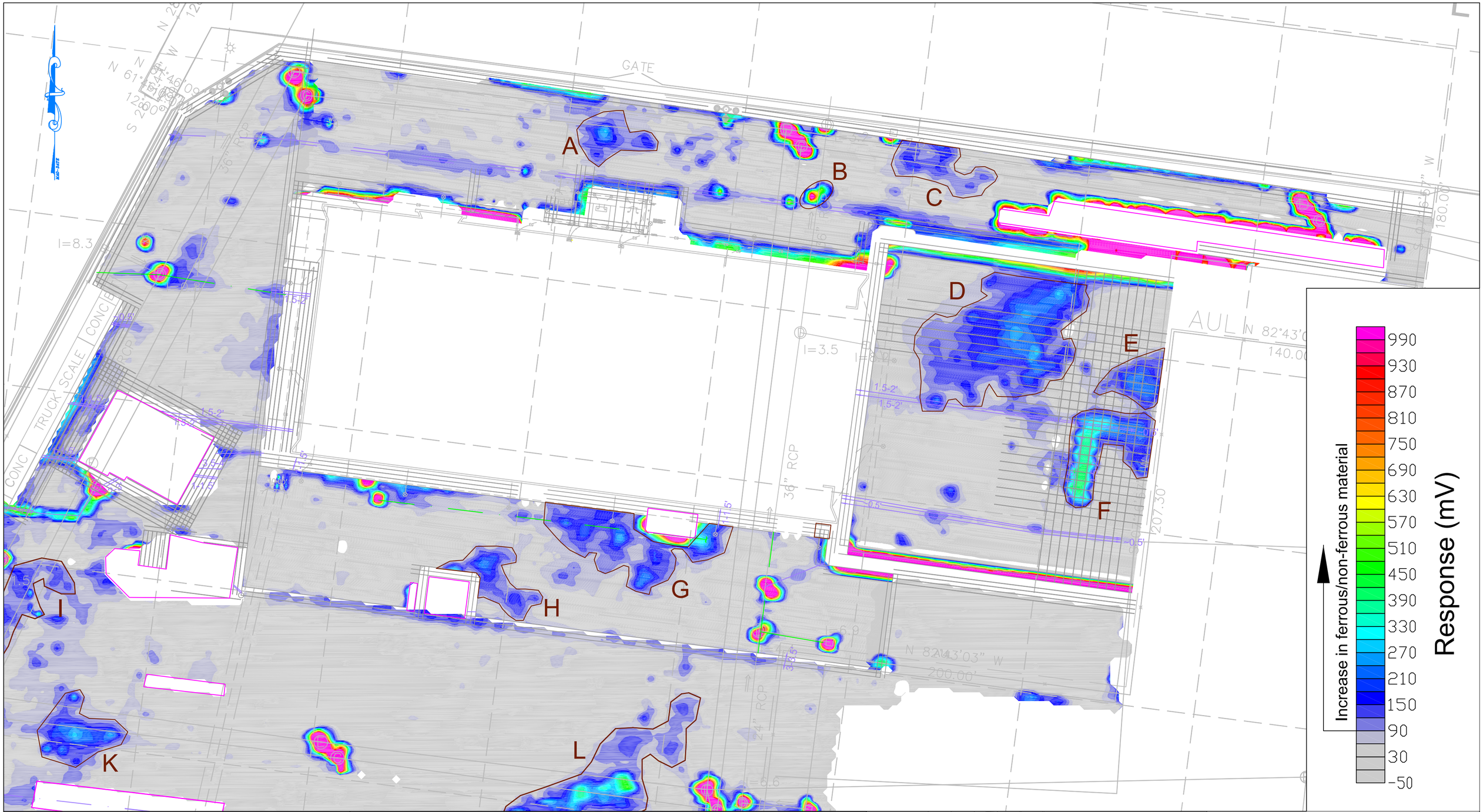
PLATE 1

APRIL 2011	FILE NO. 2011010

Geophysical Traverse/Data Point Map
(HGI Section 1)
Former Schiavone Property Disposal Site
Charlestown, Massachusetts

Hager GeoScience, Inc.
596 Main Street, Woburn, MA 01801
(781) 935-8111 hgi@hagergeoscience.com

NOT ALL SUBSURFACE FEATURES MAY BE DEPICTED ON THIS MAP



LEGEND

- GPR Traverse
- Obstruction
- EM- Identified Anomaly w/ ID
- GPR- Identified Anomaly w/ Approximate Depth
- GPR- Identified Linear Anomaly
- EM- Identified Linear Anomaly
- EM- Identified Potential Sewer/Drain Line
- EM- Identified Potential Water Line

Notes:

1.) The base map "091503-02.dwg" was provided by GEI.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The contour plot was derived using the EM61 Differential Channel.
5.) Gray colors are indicative of site-specific background response while blue-to-magenta indicate an increase in the amount of ferrous and non-ferrous materials within the subsurface.
6.) GPR depths are based on migration velocity calculations and are approximate.
7.) The "~" associated with GPR identified linear anomalies and/or utilities indicates the target could not be identified any further than is indicated. The arrow indicates the target likely continues beyond the GPR survey area.

0 20 40 80
Scale in Feet

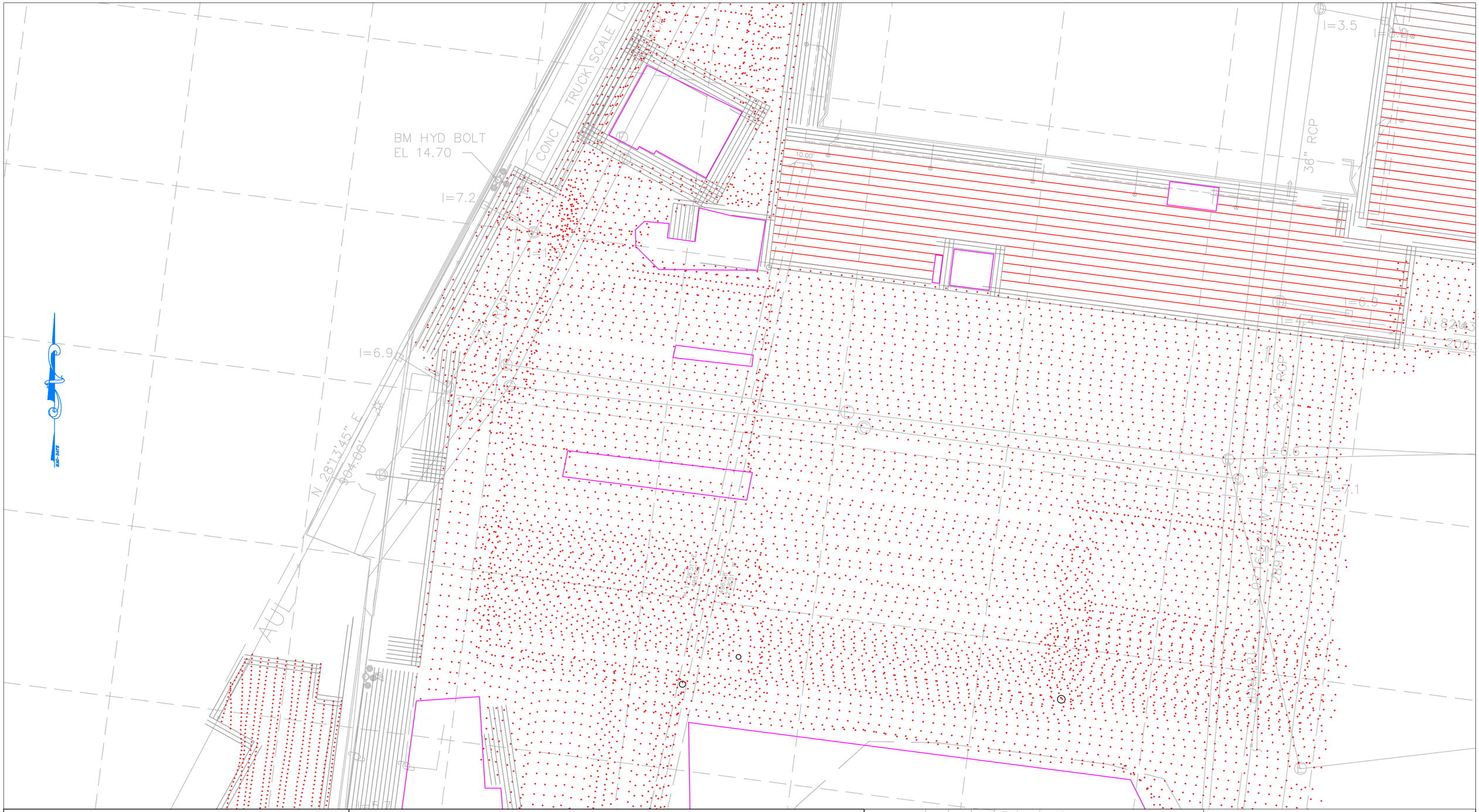
PLATE 2

APRIL 2011	FILE NO. 2011010

EM Contour Plot & Anomaly Locations
(HGI Section 1)
Former Schiavone Property Disposal Site
Charlestown, Massachusetts

Hager GeoScience, Inc.
596 Main Street, Woburn, MA 01801
(781) 935-8111 hgi@hagergeoscience.com

NOT ALL SUBSURFACE FEATURES MAY BE DEPICTED ON THIS MAP



LEGEND

GPR Traverse

EM61 Data Point / Traverse

Obstruction

Notes:

1.) The base map "091503-02.dwg" was provided by GEI.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The EM data point presented indicates the location of every fifth (5th) data point.
5.) EM data were collected with subfoot GPS streaming or HGI established grid.

0 20 40 80

Scale in Feet

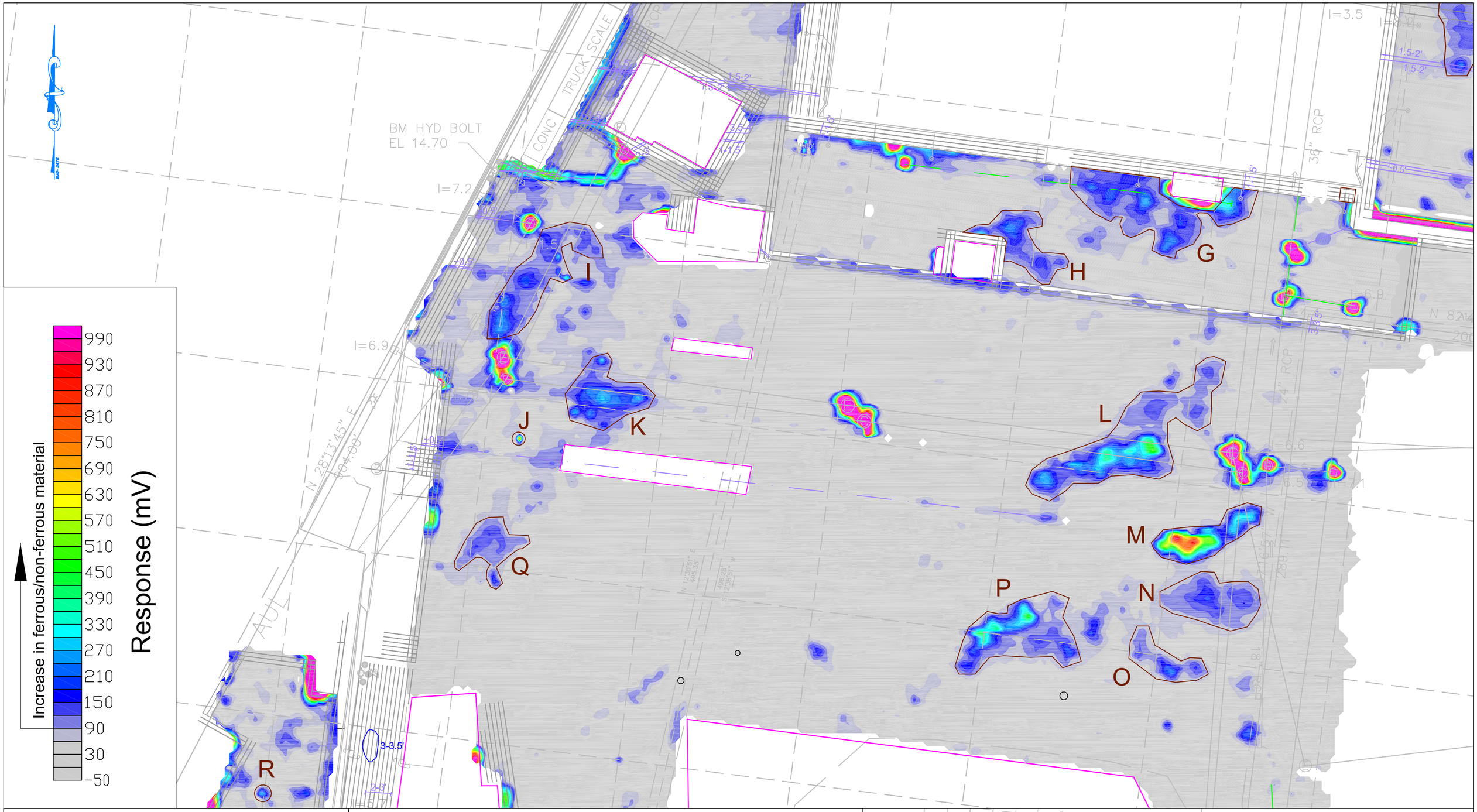
PLATE 3

APRIL 2011	FILE NO. 2011010

Geophysical Traverse/Data Point Map
(HGI Section 2)
Former Schiavone Property Disposal Site
Charlestown, Massachusetts

Hager GeoScience, Inc.
596 Main Street, Woburn, MA 01801
(781) 935-8111 hgi@hagergeoscience.com

NOT ALL SUBSURFACE FEATURES MAY BE DEPICTED ON THIS MAP



LEGEND

- GPR Traverse
- Obstruction
- EM- Identified Anomaly w/ ID
- GPR- Identified Anomaly w/ Approximate Depth
- GPR- Identified Linear Anomaly
- EM- Identified Linear Anomaly
- EM- Identified Potential Sewer/Drain Line
- EM- Identified Potential Water Line

Notes:

1.) The base map "091503-02.dwg" was provided by GEI.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The contour plot was derived using the EM61 Differential Channel.
5.) Gray colors are indicative of site-specific background response while blue-to-magenta indicate an increase in the amount of ferrous and non-ferrous materials within the subsurface.
6.) GPR depths are based on migration velocity calculations and are approximate.
7.) The "~" associated with GPR identified linear anomalies and/or utilities indicates the target could not be identified any further than is indicated. The arrow indicates the target likely continues beyond the GPR survey area.

0 20 40 80
Scale in Feet

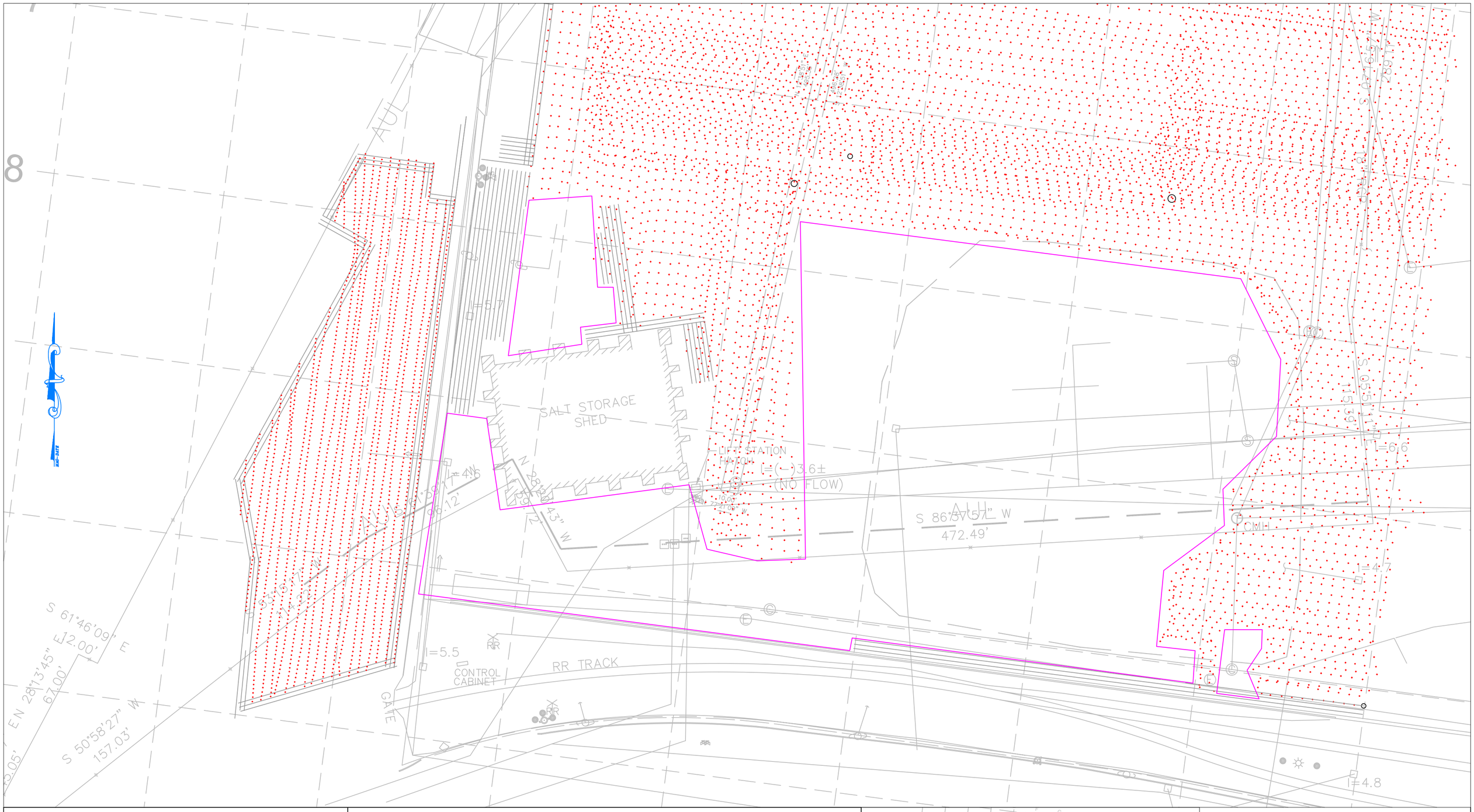
PLATE 4

APRIL 2011	FILE NO. 2011010

EM Contour Plot & Anomaly Locations
(HGI Section 2)
Former Schiavone Property Disposal Site
Charlestown, Massachusetts

Hager GeoScience, Inc.
596 Main Street, Woburn, MA 01801
(781) 935-8111 hgi@hagergeoscience.com

NOT ALL SUBSURFACE FEATURES MAY BE DEPICTED ON THIS MAP



LEGEND

- GPR Traverse
- EM61 Data Point / Traverse
- Obstruction

Notes:

1.) The base map "091503-02.dwg" was provided by GEI.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The EM data point presented indicates the location of every fifth (5th) data point.
5.) EM data were collected with subfoot GPS streaming or HGI established grid.

0 20 40 80

Scale in Feet

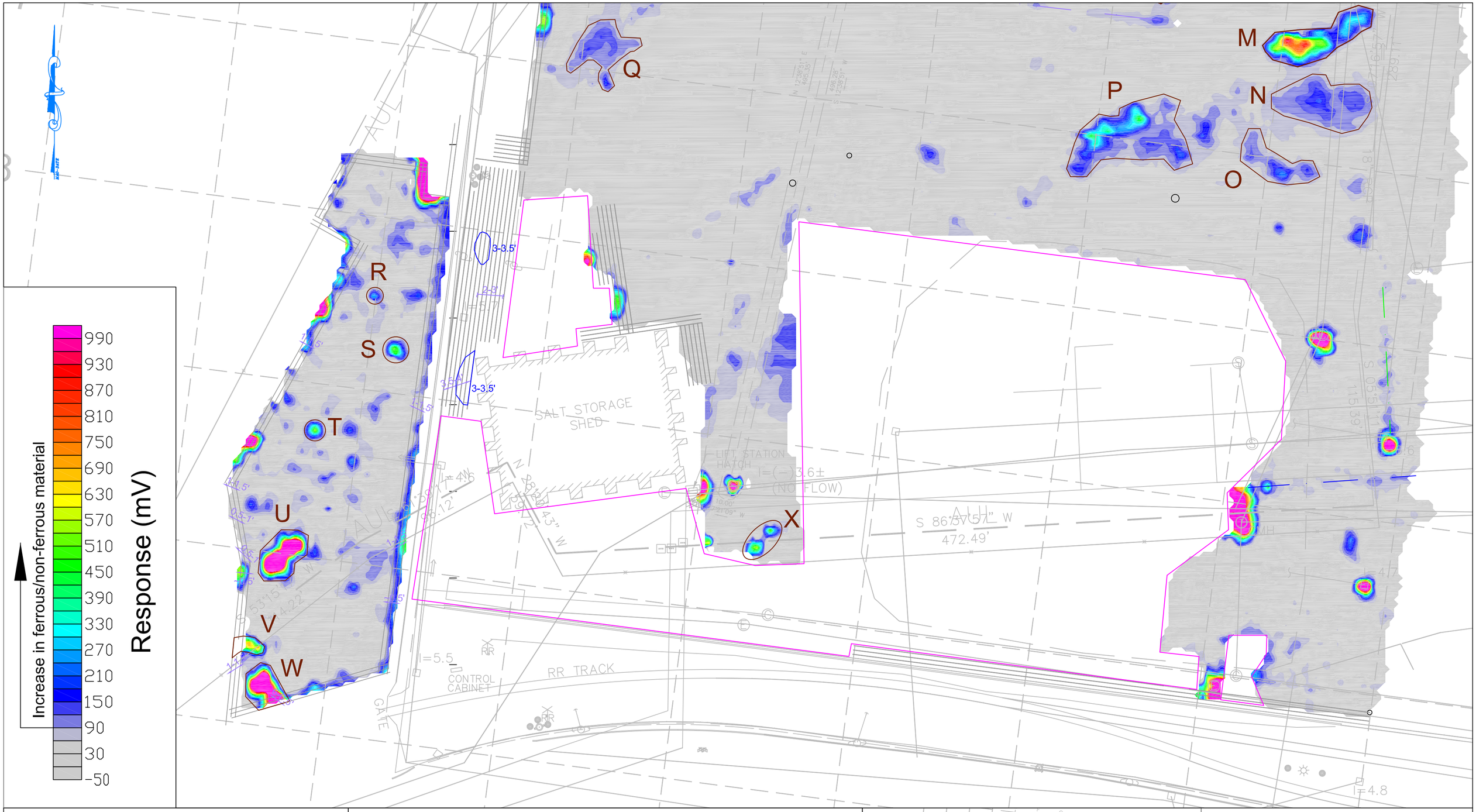
PLATE 5

APRIL 2011	FILE NO. 2011010

Geophysical Traverse/Data Point Map
(HGI Section 3)
Former Schiavone Property Disposal Site
Charlestown, Massachusetts

Hager GeoScience, Inc.
596 Main Street, Woburn, MA 01801
(781) 935-8111 hgi@hagergeoscience.com

NOT ALL SUBSURFACE FEATURES MAY BE DEPICTED ON THIS MAP



LEGEND

- GPR Traverse
- Obstruction
- EM- Identified Anomaly w/ ID
- GPR- Identified Anomaly w/ Approximate Depth
- GPR- Identified Linear Anomaly
- EM- Identified Linear Anomaly
- EM- Identified Potential Sewer/Drain Line
- EM- Identified Potential Water Line

Notes:

1.) The base map "091503-02.dwg" was provided by GEI.
2.) The base map has been grayed out.
3.) HGI located the geophysical grid, geophysical data streaming, and related markings using a GPS system with subfoot accuracy.
4.) The contour plot was derived using the EM61 Differential Channel.
5.) Gray colors are indicative of site-specific background response while blue-to-magenta indicate an increase in the amount of ferrous and non-ferrous materials within the subsurface.
6.) GPR depths are based on migration velocity calculations and are approximate.
7.) The "~" associated with GPR identified linear anomalies and/or utilities indicates the target could not be identified any further than is indicated. The arrow indicates the target likely continues beyond the GPR survey area.

0 20 40 80
Scale in Feet

PLATE 6

APRIL 2011	FILE NO. 2011010

EM Contour Plot & Anomaly Locations
(HGI Section 3)
Former Schiavone Property Disposal Site
Charlestown, Massachusetts

Hager GeoScience, Inc.
596 Main Street, Woburn, MA 01801
(781) 935-8111 hgi@hagergeoscience.com

NOT ALL SUBSURFACE FEATURES MAY BE DEPICTED ON THIS MAP