

Alternatives Analysis Report/ Remedial Action Work Plan

*295 Maryland Street Site
BCP Site No. C915242
Buffalo, New York*

December 2015

0222-001-100

Prepared For:

295 Maryland, LLC

Prepared By:



BROWNFIELD CLEANUP PROGRAM

ALTERNATIVES ANALYSIS REPORT/ REMEDIAL ACTION WORK PLAN

**295 MARYLAND STREET SITE, BCP SITE No. C915242
BUFFALO, NEW YORK**

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Prepared for:

295 MARYLAND, LLC

Prepared by:



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AAR/RAWP
295 Maryland Street Site

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Certification

I, Thomas H. Forbes, certify that I am currently a NYS registered Professional Engineer as defined in 6 NYCRR Part 375 and that this Alternatives Analysis Report/Remedial Action Work Plan for the 295 Maryland Street Site (BCP Site No. C915242) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

070950-1
NYS Professional Engineer #

4-13-15
Date



1.0 INTRODUCTION

This document presents an Alternatives Analysis Report (AAR) and Remedial Action Work Plan (RAWP) prepared under the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) for the 295 Maryland Street Site in Buffalo, New York (see Figures 1 and 2). The BCP Site consists of 1.557 acres of contiguous property at 295 and 305 Maryland, and 129 West Avenue. The AAR/RAWP and the BCP are being performed on behalf of 295 Maryland, LLC for the purpose of redeveloping former manufacturing property into residential apartments for approximately 54 living units in a three-story building (see Figure 3).

In August 2010, Benchmark Environmental Engineering & Science, PLLC (Benchmark) met with the NYSDEC to discuss the potential eligibility of the Site for inclusion in the BCP. Based on extensive prior investigation work completed on the property by Benchmark and others (discussed below), it was determined that the Site would be a candidate for entry into the BCP at the remedial implementation stage, predicated on completion of a groundwater quality assessment. Accordingly, 295 Maryland, LLC completed preliminary groundwater characterization in September 2010 and subsequently submitted a BCP application to the NYSDEC in March 2011. The BCP application was deemed complete by the NYSDEC, and the public notice was published in the Buffalo News on April 13, 2011. The review and comment period concluded on May 13, 2011 and the Site, designated as BCP Site No. C915242, was accepted into the BCP effective July 14, 2011.

1.1 Background

The Site was historically used in a residential and commercial capacity, with the property at 295 Maryland Street most recently occupied by Lamar Advertising, Inc. (Lamar), a firm specializing in the sale of billboard advertising space and erection of billboard signs. Lamar relocated to another location within the City in December 2000; the associated commercial buildings and facilities on 295 Maryland Street as well as the residences at 121-129 West Avenue have been demolished. Currently, the Site is vacant and undeveloped.

A Phase I Environmental Site Assessment (ESA) was performed for the former Lamar Advertising property in January 2000, prior to facility demolition (Ref. 1). A separate Phase I ESA was prepared in 2001 for 121-129 West Avenue on behalf of the Buffalo

Niagara Renaissance Corporation (BNRC) (Ref. 2). The ESA reports indicate that 121-129 West Avenue was historically used for residential purposes, with 295 Maryland Street historically improved with an office, commercial building, and two multiple bay garages. Potential recognized environmental conditions (RECs) at 295 Maryland Street included:

- Vehicle maintenance
- Use and storage of paints, adhesives, and other flammables
- Underground storage tanks (USTs): 550-gallon and 4,000-gallon gasoline USTs were reportedly removed from the Site in 1974 and 1997, respectively. In addition, a small UST containing benzene was reportedly discovered and removed during facility decommissioning.

A Phase II Environmental Site Investigation was completed at 295 Maryland Street by Benchmark on behalf of the BNRC in November 2001 (Ref. 3) based on Phase I ESA findings. The Phase II identified surface and subsurface soil/fill materials exceeding NY State soil cleanup guidance values (i.e., as compared to TAGM 4046, the applicable NYSDEC guidance in place at that time) for certain parameters, including arsenic, lead, mercury, and several polycyclic aromatic hydrocarbons (PAHs). These same parameters are elevated with respect to more recent Soil Cleanup Objectives (SCOs) for restricted-residential use as published in 6NYCRR Part 375. Section 3.0 discusses the findings of the historic investigations in more detail, as well as supplemental investigations completed under the BCP to assess groundwater quality and refine areas of soil/fill requiring remediation.

1.2 Purpose and Scope

This AAR and RAWP has been prepared in general accordance with Section 5.3.b of NYSDEC's May 2010 DER-10 Technical Guidance for Site Investigation and Remediation. Accordingly, it addresses the following items:

- A Site characterization, including a description of the data from prior reports and the results of supplemental groundwater and soil/fill assessments in 2010, 2011, and 2013 (Section 2.0).
- Alternatives analysis relative to the NYSDEC Site Screening Criteria (Section 3.0).
- Remedial Action Work Plan for the implementation of the selected remedy (Section 4.0) along with schedule for implementation.
- References cited in the report (Section 5.0).

1.3 Project Organization and Responsibilities

Benchmark, a NY State professional engineering firm, will serve as BCP consultant to 295 Maryland, LLC. An experienced and qualified contractor will be retained by 295 Maryland, LLC to implement the remediation, with Benchmark providing confirmatory sampling as well as Qualified Environmental Professional (QEP) observation and documentation of the remedial activities. The NYSDEC Division of Environmental Remediation (DER) will monitor the remedial actions to verify that the work is performed in accordance with the approved RAWP.

2.0 SITE CHARACTERIZATION

2.1 2001 Investigation Approach

Investigation activities undertaken on 295 Maryland Street on behalf of the BNRC in 2001 included an electromagnetic (EM) survey to check for the presence of buried metallic objects across the property, and a test pit investigation to further investigate the source of EM anomalies and allow for surface and subsurface soil/fill characterization. A summary of the 2001 investigation activities is presented below.

2.1.1 EM-61 Survey

On September 13-14, 2001, Benchmark's designated subcontractor, Geomatrix Consultants, Inc., performed an electromagnetic geophysical (EM-61) survey across 295 Maryland Street. The purpose of the EM-61 survey was to identify and define areas within the Site boundary that may be indicative of buried metal or other highly conductive material. A Geonics EM-61 high-resolution time domain electromagnetic (TDEM) metal detector capable of detecting both ferrous and nonferrous metallic objects was used to collect the subsurface data. The EM-61 has an approximate effective depth of up to 10 feet below ground surface (fbgs).

Results of the geophysical survey indicated a number of suspect buried metallic anomalies across the property (see Appendix A). Based on discussions with the former owner (Lamar), several of the anomalies were suspected to be structural (reinforced) concrete. In addition, Lamar provided documentation substantiating removal of two USTs historically used for gasoline storage and a small UST historically containing benzene; these three USTs were identified in the January 2000 Phase I ESA Report. Nevertheless, Benchmark and the BNRC agreed that additional intrusive investigation would be required to positively identify the source of the anomalies.

2.1.2 EM Anomaly Test Pits

On October 22, 2001, a total of 10 test pits (EM-1 through EM-10) were excavated at suspect anomaly locations identified during the EM survey (see Figure 4). The test pits were excavated with a track-mounted excavator until the geophysical anomaly was positively identified, which occurred at depths ranging from 6 inches to 4 fbgs. During test pit

excavation, a Benchmark engineer logged the test pit lithology and anomaly findings, and characterized excavated soil/fill for visual and/or olfactory evidence of contamination. Soil/fill materials were also screened for volatile organic vapors with a photoionization detector (PID) as a further indicator of potential contamination.

Fill was generally present at each location to a depth of 3-4 fbgs. A thin layer of native topsoil overlying native clayey soils with silt was typically encountered below the fill materials. Groundwater was not encountered, excluding some instances of perched water over clayey soils. The fill material consisted of generally fine grained and very loose soil with mixtures of brick, concrete, ash, slag, and various metallic debris. All EM test pits positively identified each geophysical anomaly as metallic debris (e.g., steel channeling, plates, angles, etc.) and/or reinforced concrete; no vessels or containers were discovered. None of the test pits exhibited field evidence of impact with the exception of test pit EM-6, where a slight petroleum odor and staining were noted in the excavated fill soils. Based on these observations, test pit EM-6 was extended approximately 6 feet in the northern direction to provide an indication of the extent of impact. As the test pit was continued to the north, visual and olfactory evidence of petroleum became less evident to the point where no impacts were observed. In addition, perched water was encountered at the apparent native soil interface (approximately 3 fbgs), with a slight sheen observed on the perched water surface at this location.

In order to characterize the impacted soil/fill, a composite sample was collected from the side wall of test pit EM-6 for laboratory analysis of: “full list” volatile organic compounds (i.e., NYSDEC STARS List and Target Compound List volatiles); Target Compound List (TCL) semi-volatile organic compounds (SVOCs); Target Analyte List (TAL) inorganic compounds; and polychlorinated biphenyls (PCBs).

2.1.3 Soil Characterization Test Pits

On October 23, 2001, Benchmark completed 10 soil characterization test pits (TP-1 through TP-10) across the 295 Maryland Street parcel (see Figure 4). Each test pit was completed to a depth of 8 fbgs or refusal, whichever occurred first.

At each location, Benchmark recorded pertinent field observations including fill types; depth to native soil (if encountered); visual or olfactory evidence of contamination; and photoionization detector (PID) readings. The investigation test pit lithology was similar

to the EM test pits, with the upper 6 inches to 1 foot of soil at each test pit location generally comprised of topsoil and clayey soils mixed with fragments of brick and stone. Approximately 2-3 feet of reworked clay fill generally underlies this upper fill layer followed by a thin (2 to 4-inch) historic topsoil layer. Deeper native soils are characterized by brown clayey soils containing some silt. Appendix B includes the test pit logs summarizing these field observations.

Benchmark collected separate composite samples of the surficial (0-6" below grade) and subsurface (1' below grade to completion) soils from each test pit. Samples were either retrieved using a stainless steel trowel or the backhoe bucket, depending on sample depth. All shallow (0-6") samples were collected for analysis of TCL SVOCs, PCBs, and TAL inorganic compounds. Deeper samples (6" to completion) were collected for these same parameters as well as TCL VOCs. All environmental samples were cooled to 4°C and transferred under chain-of-custody to Friend Laboratory for analysis in accordance with USEPA Method SW-846 protocols.

2.2 2010-2011 Supplemental Investigation Approach

In September 2010, Benchmark performed a preliminary groundwater investigation in support of the BCP application. Four groundwater monitoring wells (MW-1 to MW-4) were installed to allow for collection of representative groundwater samples across the Site and determine groundwater elevation and flow direction. The wells were initially sampled in September 2010 and resampled for select parameters in March 2011. In addition, the drill rig advanced one soil boring (deemed SB-5) on the 129 West Avenue parcel to establish soil lithology and allow for sample collection on that property, which was not assessed during the 2001 Phase II investigation.

2.2.1 Soil Borings

On September 13-14, 2010, Earth Dimensions, Inc. (retained by Benchmark) drilled four well borings and soil boring SB-5 using 4¼-inch hollow stem augers. As shown on the field borehole logs in Appendix C, 2-inch diameter split-spoon samples were collected at 2-foot intervals continuously through the fill and into the native soil. Stratigraphic field borehole logs were prepared by a qualified geologist from ground surface to the bottom of the borehole. Borings MW-1 through MW-4 were drilled to a nominal depth of 22 fbs, and

SB-5 to 6 fbgs. Each 2-foot split-spoon soil sample was scanned for total organic vapors with a MiniRae 2000 Photoionization Detector (PID) equipped with a 10.6 eV lamp. Soil descriptions, PID scan results, and visual/olfactory observations during boring advancement are recorded on the Field Borehole Logs in Appendix C. As indicated, there were no organic vapors detected above background levels or any visual observations of impact identified in any of the overburden soil samples with the exception of a trace PID reading (1.6 ppm) from 20 to 22 fbgs at MW-2.

Two soil samples were collected during soil boring advancement. Sample MW-3 (4-6') was collected to discretely characterize the native soil layer, as the 2001 program involved collection of a composite of subsurface soil/fill sample that straddled both the fill and native soil intervals. Sample SB-5 (0-2') was collected to characterize fill materials on the 129 West Avenue Parcel. Soil samples were collected using dedicated stainless steel sampling tools. Representative soil samples were placed in pre-cleaned sample bottles and submitted under chain-of-custody to TestAmerica Laboratories Inc., for analysis of TCL VOCs, TCL SVOCs, PCBs, pesticides, and TAL inorganic compounds.

2.2.2 Monitoring Well Construction and Sampling

Following borehole advancement, monitoring wells were installed within soil borings MW-1 to MW-4 at the locations shown on Figure 4. Appendix C includes the monitoring well installation logs. The well screens were installed between approximately 12 and 22 fbgs and extended into the sandy silt layer underlying the native clay soils. The wells were constructed with 2-inch diameter, flush-joint Schedule 40 PVC, and completed in flush mount protective locking curb boxes. Benchmark developed the newly installed monitoring wells on September 18, 2010.

Benchmark surveyed the wells on October 12, 2010; elevations were made relative to an arbitrary vertical datum designated at 500.00 feet. Groundwater was sampled on September 23, 2010 and March 1, 2011. Prior to and immediately following collection of groundwater samples, field measurements for pH, specific conductance, temperature, turbidity, dissolved oxygen, water level, and visual and olfactory field observations were recorded on the forms provided in Appendix D.

Groundwater grab samples were collected from each monitoring well using dedicated disposable polyethylene bailers. The September 2010 samples were transferred into

laboratory provided pre-preserved sample vials for analysis of TCL VOCs, TCL SVOCs, Pesticides/PCBs, and TAL inorganic compounds as well as total cyanide. Samples collected on March 1, 2011 were analyzed for a subset of parameters based on detections during the first event. The samples were cooled to 4°C in the field, and transported under chain-of-custody to TestAmerica Laboratories, Inc. The soil and groundwater samples were analyzed using United States Environmental Protection Agency (USEPA) SW-846 methods, and a Category B deliverable package was prepared (see Appendix E). Appendix D contains the groundwater sampling summary logs.

2.3 Soil BUD-Evaluation

A soil BUD-investigation was performed on September 18-20, 2013 to better assist in defining the volume of soil/fill materials potentially requiring remediation under a restricted-residential use scenario and evaluate the possibility of reuse of some of the soil at another BCP Site. The work included the completion of 25 test pits designated as TP-1-13 through TP-25-13 (see Figure 4). Several of the test pits were directed toward areas of former dwellings on the property to characterize backfill of the basement areas. The test pits were advanced by Benchmark with a Komatsu PC150LC excavator to a maximum depth of approximately 14 fbgs. Soil/fill samples were generally characterized within each test pit in 2-foot intervals continuously from the ground surface through the test pit terminus. Table 1 summarizes the soil descriptions, PID scan results, and visual/olfactory observations for the pre-remedial test pit investigation. No evidence of gross impact was observed with the exception of elevated PID readings in two areas. As indicated on Figure 4 and Table 1, soil/fill PID screening during the test pit activities indicated field evidence of impact in two areas of concern (AOCs): AOC 1 as represented by test pit TP-6-13 (5.5 to 11 fbgs); and AOC 2 as represented by test pits TP-9-13 (4 to 14 fbgs) and TP-13-13 (0 to 7 fbgs). At these locations, PID readings greater than 100 ppm were reported along with moderate odor.

To further assess potential impacts across the Site and determine potential alternatives for beneficial reuse of excavated soil/fill, 10 composite soil/fill samples were selected for laboratory analysis from 10 test pits at varying depths. Composite subsurface soil/fill samples were transferred to laboratory supplied, pre-cleaned sample containers, stored on ice in a cooler, and transported to Alpha Analytical following chain of custody

procedures. Alpha Analytical is an independent, New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory. Table 2 summarizes the analytical program that was implemented. Appendix E contains the laboratory analytical data report.

2.4 Investigation Findings

2.4.1 Physical Soil Description

As represented by 45 test pits and 5 borings, the soil at the 295 Maryland Street Site consists of fill generally present at each location to a nominal depth between 3 and 4 fbgs, with deeper areas of fill identified in certain areas where former dwellings with basements were located. Reworked and native clay soils underlying a thin layer of native topsoil were typically encountered below the fill materials. No fill materials were encountered during advancement of well boring MW-1, suggesting that fill thickness thins toward West Avenue consistent with Site topography (see Figure 4). Groundwater was not encountered within the fill, excluding some instances of perched water over clayey soils. The fill material generally consists of fine-grained soil (silt and clay) with mixtures of brick, concrete, ash, slag, and varying types of metallic debris. Underlying the fill material was a layer of brown clayey soils containing some silt typically extending to approximately 15 fbgs (20 fbgs in MW-4). A sandy silt layer beneath the clay layer was saturated and represents the uppermost water bearing unit at the Site.

2.4.2 Groundwater Contours

Table 3 summarizes the groundwater elevations measured on September 23, 2010. As shown on Figure 5, overburden groundwater flows toward the southwest. MW-2 is a downgradient well and MW-4 is an upgradient well for the Site.

2.4.3 Soil Sample Results

Table 4 summarizes the analytical results of soil samples collected during the 2001 Phase II investigation, 2010 soil boring program, and 2013 pre-remedial investigation. Figure 4 shows the soil sample locations.

As indicated on Table 4, surficial (0-0.5') and subsurface (>0.5') soil testing identified several PAHs and five inorganic compounds at levels in excess of the NYSDEC SCOs for restricted-residential use (see Figure 7). The compounds detected above restricted-residential SCOs in at least one samples include: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3)pyrene, dibenz(a,h)anthracene, arsenic, barium, cadmium, lead, and mercury.

Samples from AOC 1 (TP-6-13; 7-9') and AOC 2 (TP-9-13; 9-12') were tested using the toxic characteristic leaching procedure (TCLP) with the extract analyzed for VOCs via USEPA Method 1311. As indicated on Table 4, no VOCs were detected in the extract from either sample. The negligible total VOCs and absence of leachable VOCs in these AOCs suggest that the elevated PID readings and moderate odors are indicative of weathered petroleum from a historic release.

2.4.4 Groundwater Sample Analytical Results

Table 5 summarizes the analytical results of the groundwater sampling. As indicated, select VOCs and SVOCs were detected in the sample from well MW-2 at concentrations above NYSDEC groundwater quality standards and guidance values (GWQS/GVs). The VOCs and SVOCs detected above these standards include: benzene, ethylbenzene, toluene, and xylenes (BTEX); 1,2,4-trimethylbenzene; isopropylbenzene; benzo(a)anthracene; and naphthalene, all of which are constituents of petroleum products (e.g., gasoline or diesel). No other VOCs or SVOCs exceeded GWQS/GVs. Individual VOC and SVOC concentrations at well MW-2 were less than 100 micrograms per liter (ug/L). The total VOC concentrations from each of the two sampling rounds were 196 and 263 ug/L, well below the 1,000 ug/L threshold typically employed for inactivation of petroleum spill sites. Benzo(a)anthracene and naphthalene are relatively immobile in groundwater (i.e., high octanol-water partition coefficient and low water solubility). Results of groundwater testing are presented on Figure 5 for the sampling done on March 1, 2011.

Pesticides were also detected in the groundwater from all four wells. Pesticide exceedances of the GWQS/GVs were reported in wells MW-2, MW-3, and MW-4 for one or more of the following: alpha-BHC, beta-BHC, dieldrin, gamma-chlordane, and heptachlor. Concentrations were all less than 1 ug/L. Higher levels of pesticides were identified in wells MW-4 (upgradient) and MW-3, suggesting groundwater transport onto the

Site from an upgradient source. Downgradient well MW-2 had one exceedance (beta-BHC) of the GWQS/GVs at a concentration of 0.06 ug/L during the September 23, 2010 sampling event. Well MW-1 did not contain any pesticide concentration above the GWQS/GVs.

Groundwater from all four wells contained levels of sodium greater than the GWQS. Groundwater from well MW-4 contained a slight exceedance of manganese (0.315 mg/L) as compared to the GWQS (0.3 mg/L). Sodium and manganese are naturally-occurring minerals. Their presence in the upgradient wells indicates ambient conditions.

2.4.5 Chemicals of Potential Concern

Based on the foregoing, chemicals of potential concern (COPCs) in soil as defined by exceedances of restricted-residential SCOs include the following PAHs: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3)pyrene, and dibenz(a,h)anthracene. In addition, the following inorganic compounds were detected in at least one sample in excess of the restricted-residential SCOs and are considered COPCs: arsenic, barium, cadmium, lead, and mercury.

Groundwater constituents that were identified above GWQS/GVs but were not otherwise identified in upgradient wells include VOC and SVOC compounds commonly associated with petroleum products (e.g., gasoline or diesel). Results of testing from the most recent groundwater sampling round (March 1, 2011) are presented on Figure 5. While groundwater samples from well MW-2 exceeded GWQS/GVs for certain petroleum VOCs and SVOCs, the concentrations present are not indicative of a large release; rather, these results are indicative of residual contamination in *de minimis* quantities. Further, the contaminants are subject to natural degradation due to sorption and biodegradation, and the likely source of VOCs has been removed (i.e., historic USTs). Consequently, the levels of VOCs will continue to naturally degrade over time. In addition, residents in Buffalo are serviced by municipal-supplied public water obtained from Lake Erie; therefore, exposure to contaminants is unlikely as there are no drinking water receptors and the environmental easement will prohibit the use of groundwater.

2.5 Conceptual Model

Historical usage of this Site as a manufacturing facility from the 1920s through 2000 included the use of solvents; petroleum products including gasoline (USTs) and hydraulic oil (maintenance lift); paints; and other hazardous materials. Import of non-virgin fill material as well as apparent releases from these manufacturing products/processes resulted in surface and subsurface soil impacts for SVOCs and inorganic compounds to a depth of approximately 1 to 4 fbg across the Site, with deeper impacts identified in areas where basements were historically present. The SVOCs and inorganic compounds detected in the soil/fill are isolated to that medium as they are not mobile in groundwater nor are they subject to significant volatilization.

2.6 Fate and Transport of COPCs

The soil and groundwater sample analytical results were incorporated with the physical characterization of the Site to evaluate the fate and transport of COPCs in Site media. The mechanisms by which the COPCs can migrate to other areas or media are outlined below.

2.6.1 Airborne Pathways

Potential migration pathways involving airborne transport of non-volatile COPCs include erosion and transport of soil particles and sorbed chemical constituents in fugitive dust emissions.

2.6.2 Fugitive Dust

The chemicals present in soil/fill at elevated concentrations are considered non-volatile substances that can be released to ambient air as a result of fugitive dust generation caused by wind erosion or physical disturbance of surface soil particles.

2.6.3 Waterborne Pathways

Chemicals in surface soils could be potentially transported via storm water runoff. Due to the relatively insoluble nature of the soil COPCs and presence of clayey soils above

the water table, chemical migration via leaching to groundwater from surface soil/fill is not considered a migration pathway.

2.6.4 Groundwater Pathway

Concentrations of VOCs (primarily BTEX) and two SVOC compounds in groundwater do not represent a significant threat to on-site or off-site receptors. Public water is available and the environmental easement will prohibit the use of groundwater. The concentrations of the compounds detected are relatively low. The chemical properties (low water solubility and high octanol-water partition coefficient) coupled with the attenuation processes such as sorption and biodegradation makes the groundwater pathway insignificant. Other compounds detected in groundwater (low level pesticides and inorganic compounds) appear to be a result of upgradient off-site conditions or are otherwise ubiquitous.

2.6.5 Surface Water Runoff

Erosion and transport of surface soils and associated sorbed chemicals in surface water runoff is a potential migration pathway as the Site is sloped with sparse vegetation. The Site is surrounded by a combined sanitary/storm water sewer collection system (i.e., Buffalo Sewer Authority [BSA] collection and conveyance system), which provides a mechanism for controlled surface water transport, but will ultimately result in sediment capture in the BSA's grit chambers followed by disposal at a permitted sanitary landfill.

2.6.6 Exposure Pathways

Based on the conceptual model described in the previous section, the potentially complete exposure pathways through which Site contaminants could reach receptors at significant point concentrations include:

- On-site contact with surface and subsurface soil/fill and vapor intrusion into buildings.

3.0 REMEDY SELECTION

3.1 Remedial Action Objectives

The remedial actions for the 295 Maryland Street Site must satisfy Remedial Action Objectives (RAOs). RAOs are site-specific statements that convey the goals for minimizing substantial risks to public health and the environment and/or addressing specific environmental regulatory requirements. For the Site, appropriate RAOs have been defined as follows:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the site.

3.2 Alternative Evaluation Criteria

NYSDEC's Environmental Remediation Program calls for remedy evaluation in accordance with DER-10 Technical Guidance for Site Investigation and Remediation (Ref. 4) and set forth in 6NYCRR 375-1.8(f). The guidance provides for remedy evaluation for the nine criteria described below:

1. **Overall protectiveness of public health and the environment.** This criterion is an evaluation of the remedy's ability to protect public health and the environment, assessing how risks posed through each existing or potential pathway of exposure are eliminated, reduced, or controlled through removal, treatment, engineering controls, or institutional controls.

2. **Standards, criteria, and guidance.** Compliance with SCGs addresses whether a remedy will meet applicable environmental laws, regulations, standards, and guidance. Table 6 summarizes the SCGs for the Site.
3. **Long-term effectiveness and permanence.** A program or project that achieves a complete and permanent cleanup of the site is preferred over a program or project that does not do so. This criterion evaluates the long-term effectiveness of the remedy after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: (i) the magnitude of the remaining risks (i.e., will there be any significant threats, exposure pathways, or risks to the community and environment from the remaining wastes or treated residuals), (ii) the adequacy of the engineering and institutional controls intended to limit the risk, (iii) the reliability of these controls, and (iv) the ability of the remedy to continue to meet RAOs in the future.
4. **Reduction in toxicity, mobility, or volume of contamination through treatment.** A program or project that permanently and significantly reduces the toxicity, mobility, or volume of contamination is to be preferred over a program or project that does not do so. This criterion evaluates the remedy's ability to reduce the toxicity, mobility, or volume of site contamination. Preference is given to remedies that permanently and significantly reduce the toxicity, mobility, or volume of the wastes at the site.
5. **Short-term impacts and effectiveness.** Short-term effectiveness is an evaluation of the potential short-term adverse impacts and risks of the remedy upon the community, the workers, and the environment during construction and/or implementation. This includes a discussion of how the identified adverse impacts and health risks to the community or workers at the site will be controlled, and the effectiveness of the controls. This criterion also includes a discussion of engineering controls that will be used to mitigate short term impacts (i.e., dust control measures), and an estimate of the length of time needed to achieve the remedial objectives.
6. **Implementability.** The implementability criterion evaluates the technical and administrative feasibility of implementing the remedy. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.
7. **Cost-effectiveness, including capital costs and annual site maintenance plan costs.** Capital, operation, maintenance, and monitoring costs are estimated for the remedy and presented on a present worth basis.
8. **Land Use.** This is an evaluation of the current, intended, and reasonably intended future use of the site. In developing and screening remedial alternatives, NYSDEC's Part 375 regulations require that the reasonableness of the anticipated future land be

factored into the evaluation. The regulations identify 15 criteria that must be considered. Appendix F presents these criteria and the resultant outcome for the 295 Maryland Site. As indicated, this evaluation supports residential use as the reasonably anticipated future use of the Site, which is consistent with historic use of the neighborhood. Accordingly, remedial alternatives to clean up the Site to restricted-residential end use are identified and evaluated herein.

9. **Community acceptance.** This criterion evaluates the public's comments, concerns, and overall perception of the remedy, and is generally gauged through public comment of the NYSDEC's Decision Document.

3.3 Technology Evaluation

The types of technologies that could be implemented at the Site are limited based on the exposure scenarios and the recalcitrant nature of the inorganic compounds and PAHs to treatment technologies such as soil washing and chemical oxidation. Accordingly, technologies that can be used under these conditions and to address the COCs identified herein are generally limited to excavation and off-site disposal or capping.

3.4 Alternative Evaluation

The Site is intended to be used for residential (apartment) purposes. As such, the alternatives include options to achieve a restricted-residential end use. In addition, the least restricted-use (i.e., unrestricted) scenario is evaluated consistent with the requirements of NYSDEC DER-10. The following alternatives are evaluated relative to the criteria outlined in Section 3.2:

- Unrestricted use SCOs (Track 1)
- Restricted-residential use SCOs (Track 2) with institutional controls (ICs)
- Restricted-residential use using site-specific action levels (Track 4) with IC/ECs

3.4.1 Alternative 1: Remediate to Unrestricted-Use Conditions (Track 1)

Alternative 1 consists of excavation and off-site disposal of all soil/fill that contains chemical constituents at concentrations greater than the 6NYCRR Part 375 unrestricted-use SCOs and/or is considered grossly contaminated media. Achieving Track 1 remediation goals generally obviates the need for IC/ECs; however, under this scenario a groundwater restriction may be required to preclude groundwater use without treatment unless data can

be generated to show that groundwater meets Class GA GWQS/GVs following completion of the removal work.

Exceedances of the Part 375 unrestricted-use SCO values were noted in the majority of soil/fill samples collected at the Site, primarily for PAHs and select metals. Due to the highly ubiquitous nature of the constituents observed in Site soil/fill and the extent to which they exceeded the unrestricted-use SCO values, it is likely that this alternative would require removal of soil/fill materials across the entire Site footprint as well as deeper areas in the AOCs (i.e., in the vicinity of test pits TP-6-13 and TP-9-/TP-13-13) where PID impacts extend into the underlying native soils. Based on these assumptions, Figure 6 illustrates the areas and approximate depths of soil/fill removal that would be expected under this alternative. The volume of impacted soils/fill across the Site that would be excavated, loaded, transported and landfilled is estimated at 10,900 cubic yards (i.e., approximately 17,500 tons).

The excavated soil/fill is assumed to be non-hazardous and would therefore be transported to a commercial solid waste disposal facility. Excavated materials would require handling and preparation prior to off-site transportation and disposal. Excavated areas would be backfilled with material meeting the BCP criteria presented in DER-10 and 6NYCRR Part 375 to the design (i.e., redevelopment) subgrade elevations and grades, and all disturbed areas would be restored with topsoil and grass seeding or hardscape.

Overall Protectiveness of Public Health and the Environment – Excavation and off-site disposal to unrestricted-use SCO values would be protective of public health under the intended reuse scenario (i.e., apartments with municipal water service). However, this alternative would permanently use and displace approximately 11,000 cubic yards (CY) of valuable landfill airspace, and would require excavating, transporting, and placing a similar number of CY of clean soil from an off-site borrow source to backfill the excavation, also contributing to significant detrimental off-site environmental issues.

Compliance with SCGs – Excavation and off-site disposal work under this alternative would need to be performed in accordance with applicable, relevant, and appropriate SCGs. Soil excavation activities would necessitate preparation of and adherence to a community air monitoring plan (CAMP) in accordance with Appendices 1A and 1B of DER-10.

Long-Term Effectiveness and Permanence – This alternative would remove all impacted soil/fill and therefore provides long-term effectiveness and permanence.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – Through removal of all impacted soil/fill, this alternative would permanently and significantly reduce the toxicity, mobility, and volume of contamination on the Site. However, since this alternative transfers Site soil/fill from one environment to another, an overall reduction of toxicity and volume would not occur, although mobility of soluble constituents would be reduced in the commercial landfill with a liner, leachate collection, and cover system.

Short-Term Impacts and Effectiveness – The principal advantage of a large-scale excavation to achieve unrestricted-use SCOs is reliability of the remedy in the long-term. However, the short-term adverse impacts and risks to the community, workers, and environment during implementation of this alternative are significant. Potential accidents from heavy truck traffic would be expected as the excavation work would require removal of approximately 800 truckloads of soil/fill through narrow residential streets servicing the property and import of a similar number of clean loads from the borrow source. Dust control methods would be required to limit the release of particulates during placement of the backfill soils; however, substantial disruption of the neighboring community would occur due to material transport and deliveries and noise from heavy equipment used to construct the remedy. This action would result in storm water impacts at the borrow source(s) and on-site, and diesel fuel consumption on the order of 6,500 gallons (assuming 65 miles round trip to a local landfill; 8 miles per gallon), with an equal number of gallons likely consumed by excavation and grading equipment and backfill delivery trucks. The USEPA's estimated CO₂ generation rate for diesel engines is approximately 22.2 pounds per gallon of diesel consumed. Accordingly, this alternative would produce over 288,000 pounds of greenhouse gas. The RAOs would be achieved once the soil/fill is removed from the Site (est. 3 months).

Implementability – Certain technical implementability issues would be encountered in construction of this unrestricted-use alternative. These issues may include, but are not limited to: shoring/stabilizing excavation sidewalls to prevent sloughing during excavation;

groundwater and/or storm water handling; and traffic coordination for trucks entering and exiting the Site.

Cost-Effectiveness – The remedial costs for implementation of Alternative 1 are estimated at \$1.37 million and detailed on Table 7.

Land Use – This alternative is consistent with the reasonably anticipated future use of the Site.

Community Acceptance – Community acceptance will be evaluated based on comments received from the public on the draft Decision Document. However, significant short-term disruption may result in complaints by neighbors during construction.

3.4.2 Alternative 2: Remediate Site to Restricted-Residential SCOs with ICs (Track 2)

This remedial scenario is aimed at removal of soil/fill across the Site such that no materials remain within the upper 15 feet in excess of the restricted-residential use SCOs. Exceedances of the restricted-residential SCOs were commonly found in the surface and near surface (0-4 fbg) soil/fill materials across much of the Site, excluding the northeastern area of the property (fill materials were encountered in this area of the Site but not sampled and, as such, this area may also contain fill in excess of restricted-residential SCOs). Similar to Alternative 1 deeper soil contamination (grossly contaminated soils from apparent weathered petroleum products) exists to a limited extent in the natural soils proximate to test pits TP-6-13 and TP-9-13/TP-13-13.

Based on the assumption that this alternative would address only the known areas of restricted-residential SCO exceedances and/or grossly impacted soil/fill, Figure 7 illustrates the areas and approximate depths of soil/fill removal that would be expected. The estimated volume of impacted soil/fill across the Site that would be excavated, loaded, transported and landfilled under this alternative is estimated at 7,400 CY (i.e., approximately 11,800 tons). Post-excavation confirmatory sampling would be performed to verify achievement of the restricted-residential SCOs, the absence of nuisance conditions, and low PID readings.

The excavated soil/fill is assumed to be non-hazardous and would therefore be transported to a commercial solid waste disposal facility. Excavated materials would require

handling and preparation prior to off-site transportation and disposal. Excavated areas would be backfilled with material meeting the BCP criteria presented in DER-10 and 6NYCRR Part 375 to the design (i.e., redevelopment) subgrade elevations and grades, and all disturbed areas would be restored with topsoil and grass seeding or hardscape.

Because the alternative would not achieve unrestricted use conditions, ICs would be required. Specifically, an Environmental Easement would be prepared and filed limiting Site use to restricted-residential or a more restrictive end use and precluding the use of on-site groundwater without treatment. A Site Management Plan (SMP) would also be prepared to ensure that the ICs are followed, with annual certifications provided via a Periodic Review Report (PRR). An SMP describes the ICs/ECs, if any, and includes the following components: an IC/EC Plan; Operations and Maintenance (O&M) Plan; and Excavation Work Plan; a Site Monitoring Plan; and a copy of the Environmental Easement.

Overall Protection of Public Health and the Environment – Alternative 2 will achieve removal of soil/fill within the areas exhibiting soil contaminant concentrations in excess of restricted-residential SCOs to a nominal depth of 15 feet. As such Alternative 2 is protective of public health and the environment under the intended reuse scenario, and will successfully achieve the RAOs for the Site.

Compliance with SCGs – Excavation and off-site disposal under this alternative would need to be performed in accordance with applicable, relevant, and appropriate SCGs. Soil excavation activities would necessitate preparation of and adherence to a CAMP in accordance with Appendices 1A and 1B of DER-10.

Long-Term Effectiveness and Permanence – Excavation of the impacted soil/fill will achieve removal of effectively all soil/fill with exceedances of restricted-residential SCOs within the work limits. As such, this alternative provides long-term effectiveness and permanence.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – Through removal of all soil/fill exceeding the restricted-residential SCOs, this alternative would permanently and significantly reduce the toxicity, mobility, and volume of contamination on the Site. However, since this alternative transfers Site soil/fill from one

environment to another, an overall reduction of toxicity and volume would not occur, although mobility of soluble constituents would be reduced in the commercial landfill with a liner, leachate collection, and cover system.

Short-Term Effectiveness – The short-term adverse impacts and risks to the community, workers, and environment during implementation of this alternative are similar to those discussed for Alternative 1. Alternative 2 is expected to achieve the RAOs for the Site within approximately 2-3 months after initiation of the work.

Implementability – Technical implementability issues expected with this alternative are similar to those under Alternative 1.

Cost – The capital cost of Alternative 2 is estimated at \$1.0 million. Annual OM&M costs for annual certifications are estimated to be \$2,500. Therefore, the 30-year present worth of the remedial cost to implement Alternative 2 is estimated at \$1.05 million. Table 8 provides a breakdown of these remedial costs.

Land Use – This alternative is consistent with the reasonably anticipated future use of the Site.

Community Acceptance – Community acceptance will be evaluated based on comments received from the public on the draft Decision Document. However, significant short-term disruption may result in complaints by neighbors during construction.

3.4.3 Alternative 3: Remediate Site to SSALs and Place Cover (Track 4)

Per 6NYCRR Part 375-3.8(e)(4), Track 4 soil cleanups use site-specific information to identify site-specific SCOs (or site-specific action levels; SSALs) that are protective of public health and the environment under a restricted-use scenario. For Track 4 remedies, restrictions can be placed on the use of the property in the form of IC/ECs if they can be realistically implemented and maintained in a reliable and enforceable manner. For restricted-residential use, the top two feet of all exposed soils that are not otherwise covered by the components of the development of the site (e.g. buildings, pavement) cannot exceed the restricted-residential SCOs. Areas that exceed the restricted-residential SCOs must be

covered by material meeting the requirements of the generic soil cleanup table contained in 6NYCRR Part 375-6.7(d) for restricted-residential future Site use.

In determining the SSALs that will be employed under the Track 4 cleanup approach, it is necessary to consider: 1) the need to remediate grossly impacted soil/fill (such as those in the AOCs exhibiting weathered petroleum impact) where feasible per NYSDEC cleanup policy; and 2) the exposure scenario of the construction or maintenance worker who may need to perform periodic grounds keeping or other subsurface work (e.g., utility repairs) involving work beneath the cover system. Toward that end, Alternative 3 would include:

- Removal and off-site disposal of soil/fill that is characterized by weathered petroleum products (i.e., the AOCs associated with TP-6-13 and TP-9-/TP-13-13 and any other areas of grossly impacted soil/fill that might be encountered during construction).
- Removal and off-site disposal of soil/fill where total PAHs exceed 500 mg/kg (i.e., NYSDEC CP-51 total PAH guidance for non-residential sites; Ref. 5), and removal and off-site disposal of soil/fill where other parameter concentrations exceed Industrial SCOs¹ (see Figure 8).
- Placement of a site-wide soil cover system, including a demarcation layer (e.g., orange plastic netting) and at least two feet of approved cover material in areas not covered by impervious/hardscape materials such as asphalt driveways and parking lots, and concrete slabs or walkways. Hardscape cover outside the building footprint would be a minimum of 6 inches thick.
- Filing of an Environmental Easement limiting site use to restricted residential or more restrictive end uses, precluding the use of on-site groundwater without treatment, and requiring adherence to a Site Management Plan (SMP). The SMP would be prepared to ensure that the ICs are followed and that the ECs (cover system) are maintained, with annual certifications provided via a Periodic Review Report (PRR).

The volume of soil/fill to be excavated, loaded, transported, and landfilled under Alternative 3 is estimated at 2,065 CY (i.e., approximately 3,300 tons).

¹ The Industrial SCOs are deemed protective of human health for outdoor workers who contact soils on a routine basis (twice per week), and are therefore conservative when considered as an initial screening criterion for establishing SSALs under a Track 4 scenario. For PAHs, the alternative Soil Cleanup Level of 500 mg/kg total PAHs for non-residential sites was employed in lieu of individual Industrial SCOs per NYSDEC CP-51 Soil Cleanup Guidance on the premise that the Track 4 cleanup will include institutional controls (Environmental Easement and Site Management Plan).

Overall Protectiveness of Public Health and the Environment – This alternative meets NYSDEC requirements for a Track 4 cleanup under the BCP regulations and is protective of public health and the environment. The RAOs for the Site would be satisfied through the completed and planned remedial activities, including: removal and off-site disposal of soil/fill AOCs; removal and off-site disposal of soil/fill exceeding SSALs; installation of cover systems (soil and impervious) across the Site; and the enforced use of IC/ECs to prevent potential future exposure and limit the future Site use to restricted-residential applications.

Compliance with SCGs – The remedial activities will need to be performed in accordance with applicable, relevant, and appropriate SCGs. Imported cover material would need to meet backfill quality criteria per DER-10 and 6NYCRR Part 375. Subgrade preparation activities will need to adhere to a CAMP in accordance with Appendices 1A and 1B of DER-10.

Long-Term Effectiveness and Permanence – Removal of soil/fill AOCs and impacted soil/fill exceeding the SSALs as well as construction of a cover system will mitigate direct contact with soil/fill exceeding applicable SCOs. Periodic inspection and maintenance of the soil cover as well as the hardscape cover (e.g., asphalt roads, concrete walkways, and parking areas, etc.) will be required to assure long-term cover integrity. The SMP will include: an O&M Plan to confirm that ECs, including the cover systems, are operating and being maintained in accordance with the SMP; an Excavation Work Plan to address any impacted soil/fill encountered during post-development maintenance activities; and a Site-wide inspection program to assure that the IC/ECs placed on the Site have not been altered and remain effective. Furthermore, an Environmental Easement for the Site will be filed with Erie County, which will limit the future use of the Site to restricted-residential use, restrict groundwater use, and reference the NYSDEC-approved SMP. As such, this alternative will provide long-term effectiveness and permanence.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – Removal of soil/fill AOCs and soil/fill exceeding SSALs followed by placement of cover systems will permanently and significantly reduce the toxicity, mobility, and volume of the soil/fill that could potentially be contacted or produce localized areas of environmental impact at the Site. Accordingly, this alternative satisfies this criterion.

Short-Term Effectiveness and Impacts – During intrusive remedial activities, air monitoring will be performed to assure conformance with the CAMP action levels. The potential for chemical exposures and physical injuries will be addressed through safe work practices; proper personal protection equipment (PPE); environmental monitoring; establishment of work zones and Site control; and appropriate decontamination procedures. Excavation of the soil/fill AOCs is expected to be completed within a 2-week period, thereby limiting short-term adverse effects. This alternative will achieve the RAOs for the Site once the cover system is in place and the Environmental Easement is filed.

Implementability – No significant technical or administrative implementability issues are associated with this alternative.

Cost-Effectiveness – The estimated capital cost for Alternative 3 is \$370,000 including: soil/fill removal; construction of a 2-foot soil cover system in landscaped areas; development and filing of an Environmental Easement; and preparation of an FER and SMP. Annual OM&M costs for cover maintenance and annual certifications are estimated to be \$3,000. Therefore, the 30-year present worth of the remedial cost to implement Alternative 3 is estimated at \$432,000. Table 9 provides a breakdown of these remedial costs.

Land Use – Based on the land use evaluation presented in Appendix F, reuse of the Site in a restricted-residential capacity is consistent with past and current development and zoning on-site and within the vicinity of the Site, and does not pose additional environmental or public health risks.

Community Acceptance – Community acceptance will be evaluated based on comments received from the public on the draft Decision Document.

3.4.4 Alternative 3A: Remediate Site to SSALs (Additional Soil/Fill Removal) and Place Cover (Track 4)

Alternative 3A is similar to Alternative 3; however, under this alternative the volume of soil/fill to be excavated prior to cover placement would be expanded to improve the quality of the remaining soil/fill and further reduce the risk from exposure to residual concentrations in the event of cover system failure or breach. Specifically this alternative would involve:

- Removal and off-site disposal of an estimated 2,065 CY (same area and criteria as Alternative 3) with the addition of the following areas (see Figure 9):

- Soil/fill surrounding TP-25-13, where elevated mercury concentrations were identified in the composite sample from 0.5-4 fbg. It is suspected that the elevated concentration is associated with shallow fill materials. Excavation in this area will proceed with a goal of achieving commercial SCOs² or better for mercury.

- Soil/fill surrounding TP-7, where elevated lead and barium levels were identified in the composite sample from 0.5-4 fbg. It is suspected that the elevated concentrations are associated with shallow fill materials. Excavation in this area will proceed with a goal of achieving commercial SCOs or better for lead and barium.

- Soil/fill surrounding TP-10, where elevated PAH levels were identified primarily in the composite sample from 0-0.5 fbg. Although total PAHs were reported below the CP-51 level of 500 mg/kg, this area represents an outlier with respect to other soil/fill that will remain under the Track 4 approach. Accordingly, excavation in this area will proceed with a goal of achieving total PAHs less than 100 mg/kg consistent with other ubiquitous soil/fill on-site.

- Placement of a site-wide soil cover system, including a demarcation layer (e.g., orange plastic netting) and at least two feet of approved cover material in areas not covered by impervious/hardscape materials such as asphalt driveways and parking lots, and concrete slabs or walkways. Hardscape cover outside the building footprint will be a minimum of 6 inches thick.

- Filing of an Environmental Easement: limiting Site use to restricted-residential or a more restrictive end use; precluding the use of on-site groundwater without treatment; and requiring adherence to an SMP. The SMP would be prepared to ensure that the ICs are followed and that the ECs (cover system) are maintained, with annual certifications provided via a PRR.

² Per the September 2006 NYSDEC/NYSDOH Technical Support Document, Commercial SCOs are protective of dermal, inhalation and ingestion exposures, including those by child receptors, on a routine basis but at a reduced frequency and duration than those under a restricted residential scenario.

The volume of soil/fill to be excavated, loaded, transported, and landfilled under this Alternative is estimated at 2,200 CY (3,520 tons).

Overall Protectiveness of Public Health and the Environment – This alternative meets NYSDEC requirements for a Track 4 cleanup under the BCP regulations and is protective of public health and the environment. The RAOs for the Site would be satisfied through the completed and planned remedial activities, including: removal and off-site disposal of soil/fill AOCs; removal and off-site disposal of soil/fill exceeding the SSALs; installation of cover systems (soil and impervious) across the Site; and the enforced use of IC/ECs to prevent potential future exposure and limit the future Site use to restricted-residential applications.

Compliance with SCGs – The remedial activities will need to be performed in accordance with applicable, relevant, and appropriate SCGs. Imported cover material would need to meet backfill quality criteria per DER-10 and 6NYCRR Part 375. Subgrade preparation activities will need to adhere to a CAMP in accordance with Appendices 1A and 1B of DER-10. The remedial actions are expected to be fully protective of public health and the environment once the cover is placed and the easement is filed.

Long-Term Effectiveness and Permanence – Removal of soil/fill AOCs and impacted soils exceeding the SSALs as well as construction of a cover system will mitigate direct contact with soil/fill exceeding applicable SCOs. Periodic inspection and maintenance of the soil cover as well as the hardscape cover (e.g., asphalt roads, concrete walkways, and parking areas, etc.) will be required to assure long-term cover integrity. The SMP will include: an O&M Plan to confirm that ECs, including the cover systems, are operated and maintained in accordance with the SMP; an Excavation Work Plan to address any impacted soil/fill encountered during post-development maintenance activities; and a Site-wide inspection program to assure that the IC/ECs placed on the Site have not been altered and remain effective. Furthermore, an Environmental Easement for the Site will be filed with Erie County, which will limit the future use of the Site to restricted-residential use, restrict groundwater use, and reference the NYSDEC-approved SMP. As such, this alternative will provide long-term effectiveness and permanence.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – Removal of soil/fill AOCs and soil/fill exceeding SSALs followed by placement of cover systems will permanently and significantly reduce the toxicity, mobility, and volume of the soil/fill that could potentially be contacted or produce localized areas of environmental impact at the Site. Accordingly, this alternative satisfies this criterion.

Short-Term Effectiveness and Impacts – During intrusive remedial activities air monitoring will be performed to assure conformance with CAMP action levels. The potential for chemical exposures and physical injuries will be addressed through safe work practices; proper PPE; environmental monitoring; establishment of work zones and Site control; and appropriate decontamination procedures. Excavation of the soil/fill AOCs and other areas is expected to be completed within a 2-week period, thereby limiting short-term adverse effects. This alternative will achieve the RAOs for the Site once the cover system is in place and the Environmental Easement is filed.

Implementability – No significant technical or administrative implementability issues are associated with this alternative.

Cost-Effectiveness – The estimated capital cost for Alternative 3A is \$393,000 including: soil/fill removal; construction of a 2-foot soil cover system in landscaped areas; development and filing of an Environmental Easement; and preparation of an FER and SMP. Annual OM&M costs for cover maintenance and annual certifications are estimated to be \$3,000. Therefore, the 30-year present worth of the remedial cost to implement Alternative 3A is estimated at \$455,000. Table 10 provides a breakdown of these remedial costs.

Land Use – Based on the land use evaluation presented in Appendix F, reuse of the Site in a restricted-residential capacity is consistent with past and current development and zoning on-site and within the vicinity of the Site, and does not pose additional environmental or public health risks.

Community Acceptance – Community acceptance will be evaluated based on comments received from the public on the draft Decision Document.

3.4.5 Comparison of Remedial Alternatives

The remedial alternatives evaluated above are compared below using the same screening criteria.

Overall Protectiveness of Public Health and the Environment – Each of the alternatives is protective of public health and the environment. Alternatives 2, 3, and 3A require ICs (environmental easements) to assure protection of site users; Alternatives 3 and 3A also require ECs (cover systems) to prevent exposures to soil/fill above the restricted-residential SSALs. Alternative 3A would yield lower residual concentrations beneath the cover than Alternative 3, which would reduce short-term risks due to cover system failure.

Compliance with SCGs – Each of the alternatives will need to be performed in accordance with applicable, relevant, and appropriate SCGs. Imported subgrade backfill under each alternative as well as imported cover material under Alternatives 3 and 3A would need to meet import quality criteria per DER-10 and 6NYCRR Part 375. Subgrade preparation activities under all of the alternatives will need to adhere to a CAMP in accordance with Appendices 1A and 1B of DER-10.

Long-Term Effectiveness and Permanence – Each of the alternatives provides long-term remedy effectiveness and permanence. Alternatives 2, 3, and 3A require development and continued enforcement of ICs (environmental easements) to assure continuing effectiveness and permanence, and Alternatives 3 and 3A also require continued maintenance of the cover systems.

Reduction of Toxicity, Mobility, or Volume of Contamination through Treatment – Removal of soil/fill exceeding SCOs will permanently and significantly reduce the toxicity, mobility, and volume of the soil/fill that could potentially be contacted or produce localized areas of environmental impact at the Site; however, each of the alternatives relies on off-site disposal resulting in no overall reduction of toxicity or volume.

Short-Term Effectiveness and Impacts – Short-term impacts attributable to dust and organic vapor migration will need to be addressed under each of the alternatives via air monitoring and mitigation in conformance with the CAMP. The potential for chemical exposures and physical injuries under each alternative will be addressed through safe work

practices; proper PPE; environmental monitoring; establishment of work zones and Site control; and appropriate decontamination procedures. Potential significant short-term disruption of the neighborhood due to noise and traffic issues is associated with Alternatives 1 and 2. Alternatives 3 and 3A would be less disruptive as they will be completed over a shorter time period.

Implementability – No significant technical or administrative implementability issues are associated with Alternatives 3 or 3A. Technical implementability issues associated with Alternatives 1 and 2 may include, but are not limited to: additional work to shore/stabilize excavation sidewalls to prevent sloughing during excavation; groundwater and/or storm water handling; and traffic coordination for trucks entering and exiting the Site.

Cost-Effectiveness – The estimated 30-year present worth cost for Alternatives 1, 2, 3, and 3A are \$1.37 million; \$1.05 million; \$432,000, and \$455,000.

Land Use – Each of the alternatives proposes Site use in a restricted-residential capacity consistent with past and current development and zoning on-site and within the vicinity of the Site.

Community Acceptance – Community acceptance of the selected alternative will be evaluated based on comments received from the public on the draft Decision Document.

3.4.6 Recommended Remedial Alternative

The recommended remedial approach for the Site is *Alternative 3A: Restricted-Use (Track 4) Cleanup* because it is: protective of public health and the environment; significantly less disruptive to the community than Alternatives 1 and 2; consistent with current and future land use; and a more cost-effective approach than Alternatives 1 or 2 while fully satisfying the RAOs for the Site. Although Alternative 3A requires a higher capital investment than Alternative 3, it provides greater protection of public health because residual concentrations would be lower, resulting in reduced short-term risk if the cover system fails or is breached. In summary, Alternative 3A involves:

- Excavation and off-site disposal of soil/fill in the areas identified on Figure 9. Post-excavation confirmatory samples would be collected to assure absence of gross impact (elevated PID, visual and/or olfactory evidence of impact), and that residual concentrations of metal COCs fall below commercial SCOs with total PAHs falling below 100 mg/kg consistent with ubiquitous conditions across the site. Excavation would continue as reasonable and warranted to achieve these goals.

- Placement of a vapor barrier (greater than 10-mil) beneath the reinforced concrete floor slab of the apartment building and future buildings to prevent against potential vapor intrusion. Although not required based on current vapor intrusion guidance, this is considered a preventative measure based on elevated PID readings measured in soil/fill and low petroleum VOC levels in one of the monitoring wells. Alternatively, the building may be constructed with a vented crawl space to allow for utility access only (i.e., not for storage or occupancy), in which case vapor barrier would not be necessary. The effectiveness of the vapor barrier needs to be evaluated during the heating season after completion of the construction. Whether a vapor barrier is installed or is not installed, as per the approved Decision Document for the site, either an active SSDS should be installed on any newly constructed buildings on-site or the potential for VI should be evaluated after construction and prior to occupancy and possibly again during the heating season to characterize worst case conditions.

- Placement of a cover system across the entire BCP Site. This will be comprised of a demarcation layer and at least two feet of approved soil cover material in landscaped areas, or impervious materials such as asphalt driveways and parking lots, and concrete building foundations, slabs, or walkways in non-vegetated areas. Approved soil cover material will meet NYSDEC DER-10 standards for restricted-residential sites (i.e., lower of Part 375 public health or groundwater protection values for restricted-residential use sites). Hardscape material outside of the building footprint will be at least 6 inches thick.

- Implementation of an SMP that will include:
 - IC/EC Plan describing ECs that: include any physical barrier or method employed to actively or passively contain, stabilize, or monitor contaminants; restrict the movement of contaminants; or eliminate potential exposure pathways to contaminants; and

ICs that include restrictions on groundwater use and Site use for restricted-residential purposes.

- Excavation Work Plan to assure that future intrusive activities and soil/fill handling at the Site are completed in a safe and environmentally responsible manner.
- Site Monitoring Plan that includes provisions for a Site-wide inspection program to assure that the IC/ECs have not been altered and remain effective.
- Environmental Easement filed with Erie County.

Section 4.0 is the Remedial Action Work Plan (RAWP) that summarizes the components and details of the proposed remedial action.

4.0 REMEDIAL ACTION WORK PLAN

4.1 Purpose and Scope

This section of the Remedial Action Work Plan (RAWP) describes the excavation and off-site disposal of impacted soil/fill and cover system placement. The primary tasks of the planned remedial work are:

- Testing of the soil/fill to develop a waste profile.
- Excavation of impacted soil/fill across the Site to achieve SSALs.
- Verification sampling on a grid basis to determine residual concentrations and assess the need for additional excavation.
- Off-site transportation and disposal of impacted soil/fill at a permitted solid waste disposal facility. Any additional soil/fill requiring removal to enable a minimum two feet of cover in the “green” areas and allow for hardscape, utilities, or building areas will be subject to off-site transportation and disposal as well.

The RAWP also addresses the following tasks:

- Pre-mobilization
- Health, safety, and community air monitoring procedures
- Dust, storm water, and erosion control measures required for minimizing potential release of soils outside the work zone during construction
- Equipment decontamination requirements
- Remedial action documentation
- Implementation scheduling
- Post-remedial Site Management Plan

4.2 Pre-Mobilization Tasks

4.2.1 Public Information and Outreach

It is expected that the NYSDEC will issue a draft Decision Document for NYSDOH review and public comment. A fact sheet announcing the draft Decision Document will be transmitted to those individuals on the Brownfield Site Contact List, including property owners and residents adjacent to the Site; environmental groups; local political representatives; and interested regulatory agencies. Furthermore, a copy of the RAWP will be made available for public review at the NYSDEC Region 9 office and the Niagara Branch of the Buffalo and Erie County Public Library, the designated document repository.

4.2.2 Underground Utilities Location

The remediation contractor will contact underground facilities protection organization (Dig Safely New York, UFPO) to locate utility lines within the work area.

4.2.3 Health and Safety Plan Development

A Health and Safety Plan (HASP) will be prepared and enforced by the remediation contractor in accordance with the requirements of 29 CFR 1910.120. The HASP will cover all on-site remedial activities. Benchmark will be responsible for Site control and for the health and safety of its authorized Site workers. For informational purposes, Benchmark's HASP is provided in Appendix G. The remediation contractor will be required to develop a HASP as or more stringent than Benchmark's HASP.

4.2.4 Waste Disposal Characterization

Benchmark and the remediation contractor will coordinate with the Solid Waste Disposal Facility (SWDF) for disposition of the soil/fill to be removed from the Site. Although 295 Maryland, LLC has no knowledge of any hazardous waste disposal on the Site, the soil/fill must be tested to verify that it does not exceed characteristic hazardous waste thresholds. A composite sample(s) will be prepared from representative areas of soil/fill planned for removal by compositing discrete samples of soil/fill at a frequency agreeable to the SWDF. The composite sample(s) will be tested by the Toxic

Characteristic Leaching Procedure (TCLP) for the full list of regulated toxicity indicator parameters, as well as ignitability, corrosivity, and total PCBs. For the purposes of the discussion below, the assumption has been made that the impacted soil/fill is non-hazardous. If the soil/fill is determined to be characteristically hazardous, the RAWP will be modified.

4.3 Remedial Activities

4.3.1 Mobilization and Site Preparation

The remediation contractor's field operations at the Site will commence with mobilizing equipment and materials to the Site, and erecting safety fencing and other temporary controls as described below.

4.3.2 Temporary Facilities and Controls

Temporary facilities for use during the remedial work may include a construction field trailer and portable toilets. Temporary controls will be employed for protection against off-site migration of soil and safety hazards during construction, including safety fencing, dust suppression, and erosion control as further described below.

4.3.2.1 Access Controls

Temporary safety construction fencing (i.e., 6-foot chain link) will be placed around the perimeter of the work area(s) to distinguish the work zone and discourage trespassing. The fencing will not be removed until the excavation/ backfilling work is complete.

As a requirement of the BCP, a sign will be placed along Maryland Street to identify the property as a BCP Site.

4.3.2.2 Dust Monitoring and Controls

A CAMP will be implemented during Site excavation work. If community air monitoring indicates the need for dust suppression or if dust is visually observed leaving the Site, the remediation contractor will apply a water spray across the excavation and surrounding areas, and on haul roads as necessary to mitigate airborne dust formation and migration. Potable water will be obtained from either a public hydrant or the on-site water

service, if available. Other dust suppression techniques that may be used to supplement the water spray include:

- Hauling materials in properly tarped containers or vehicles
- Restricting vehicle speeds on-site

4.3.2.3 Erosion and Sedimentation Control

Provisions will be made for erosion and sedimentation control at the work perimeter during remediation activities. Erosion and sedimentation controls to be followed during remedial activities include silt fencing, hay baling, mulching, and other measures, as warranted and deemed necessary to mitigate erosion and sedimentation.

4.3.3 Soil/Fill Excavation

Excavation of impacted subsurface soil/fill will proceed methodically across the Site digging progressively from one side of the Site to the other. A track-mounted crawler excavator with a mechanically operated bucket will be used to unearth the soil/fill. Verification samples will be collected to confirm that SSALs have been attained. If active utilities (e.g., electric service) are encountered or anticipated, hand digging will be performed to expose the utility line within the planned excavation horizon (2 feet or deeper if needed) and limit the potential for damage to the utility(s).

Excavated materials will be direct-loaded into dump trucks for off-site disposal at a SWDF. All excavation work will be observed by an experienced Benchmark environmental scientist. If disposal truck scheduling necessitates stockpiling of excavated soil/fill, the stockpiles will be placed on and covered with plastic sheeting during non-working hours.

4.3.4 Post-Excavation Verification Sampling

Post-excavation verification composite samples will be collected from the side walls and bottom of the excavations. Consistent with the requirements of DER-10 (Ref. 4), the following discrete samples are proposed:

- One sample from the sidewall of each excavation at a frequency of one per every 30 feet along the perimeter.
- One sample for each 900 square feet of excavation bottom.

All samples will be analyzed by a NYSDOH ELAP certified analytical laboratory for TCL SVOCs (i.e., to quantify PAHs) by USEPA Method 8270 and inorganic compounds by Method 6010/7471 for arsenic, barium, cadmium, copper, lead, mercury, silver, and zinc.

Samples will be reported with an equivalent Category B deliverables package to facilitate data evaluation by a third-party validation expert.

Quality assurance (QA) samples will be collected to support the verification sample data evaluation. The QA samples will include a minimum of one matrix spike (MS), one matrix spike duplicate (MSD), and one blind duplicate per 20 verification samples. Dedicated equipment will be used to avoid the need for equipment blanks.

4.3.5 Off-Site Disposal

All sample shipments will be accompanied by a solid waste disposal manifest. Scale receipts will be required to confirm offload at the SWDF and quantify the amount of material removed from the Site.

4.4 Construction of Cover System

4.4.1 Subgrade Preparation

Site grading to design subgrade elevations, and as necessary for underground utility construction, will occur after confirmatory soil samples are received and SSALs are verified. Any excess materials will be disposed off-site at a permitted SWDF. Following sub-grade preparation work, all equipment will be cleaned free of any soil clods, mud, or clinging debris prior to removal from the Site or use in cover placement activities.

4.4.2 Demarcation Layer

A demarcation layer will be placed in designated green space areas following grading of the Site and prior to import of the soil cover system material. Demarcation will be constructed and placed so as to easily identify the existing Site sub-grade from the cover system material, and prevent the potential for inadvertent removal of sub-grade material during potential future Site work. The demarcation material will be comprised of

an orange 3/4-inch plastic industrial netting material that will be rolled across the sub-grade and overlapped by approximately one foot at the seams.

4.4.3 Cover System Placement

Construction of the cover system will follow re-grading activities and placement of the demarcation layer. The apartment building and other hardscape construction (parking, sidewalk, driveway, etc., minimum 6" thickness) in addition to the 2-foot soil layer across the remainder of the Site will encompass the Track 4 cover system. As indicated in Section 3.0, the apartment building will be furnished with passive vapor intrusion controls in the form of either a poly vapor barrier or a vented crawl space.

In areas that will not be covered with buildings or hardscape, the cover system will consist of a minimum 2-foot layer of imported clean cover soil followed by seeding or mulching around plantings. Cover material shall be compacted to mitigate potential for settlement. Cover material depth will be verified by Benchmark through survey or grade stake level measurements. Depth verification measurements will be included in the Final Engineering Report.

4.5 Import Criteria

4.5.1 General

All materials proposed for import onto the Site must be approved by the NYSDEC. The criteria under which off-site material may be used as cover or backfill are presented below.

- **Off-Site Soil:** Off-Site soil may be used as backfill provided that it originates from: 1) an NYSDEC-approved borrow site; or 2) a known source having no evidence of disposal or releases of hazardous substances, hazardous, toxic, radioactive wastes, or petroleum. In both instances the imported soil must be tested and demonstrated to meet the criteria identified in Section 3.4.2 in accordance with Appendix 5 of DER-10. In addition, no off-site materials meeting the definition of a solid waste as defined in 6NYCRR, Part 360-1.2 (a) shall be used as backfill.

- **Other Off-Site Material:** Certain material may be imported as backfill or cover, without chemical testing, provided it contains less than 10% (by weight) material

that would pass through a size 80 sieve: 1) Rock or stone, consisting of virgin material from a permitted mine or quarry; 2) steel slag under BUD#555-9-152; 3) Recycled concrete, brick, or asphalt from a NYSDEC-registered or permitted construction and demolition (C&D) debris processing facility (as specified in Section 360-16.1 of 6NYCRR Part 360) that conforms to Section 304 of the New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002). As stated in Section 360-16.4(b)(2), the facility may only accept recognizable, uncontaminated, non-pulverized C&D debris or C&D debris from other authorized C&D processing facilities. According to Section 360-16.2(c), “uncontaminated” means C&D debris that is not mixed or commingled with other solid waste at the point of generation, processing, or disposal, and that is not contaminated with spills of a petroleum product, hazardous waste, or industrial waste.

4.5.2 Quality Assurance Requirements

All imported soil sources, including general backfill soil and topsoil, will be subject to third-party testing to verify that they meet the QA requirements specified below. The contractor will be required to collect the specified number of samples and submit the samples to an independent, NYSDOH ELAP-certified laboratory for analysis. The NYSDEC will be notified of the sampling and provided an opportunity to observe the sample collection work.

All analyses will be in accordance with USEPA SW-846 methodology. The laboratory data package will be a Category A deliverable; however, the NYSDEC may request, at any time, to upgrade the deliverable to Category B. Each import soil source shall be analyzed for the following parameters as more specifically listed in 6NYCRR Part 375-6:

- VOCs – Method 8260
- SVOCs – Method 8270
- Organochlorine Pesticides and PCBs – Method 8081/8082
- Metals, excluding mercury – Method 6010
- Mercury – Method 7471
- Cyanide – Method 9013

Each import soil source shall be subject to testing in accordance with the following schedule per NYSDEC DER-10 Table 5.4(e)10:

Contaminant:	VOCs	SVOCs, Inorganics & PCBs/Pesticides	
Soil Quantity (cubic yards)	Discrete Samples	Composite	Discrete Samples/Composite
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1,000	7	2	
1,000	Add an additional 2 VOC and 1 composite for each additional 1,000 cubic yards or consult with DER		

Grab samples collected via En-Core® sampling technique will be required for VOC analysis. For all other required analyses, a minimum of four grab samples will be collected to form a single composite sample. Approximately equal aliquots of the grab samples will be composited in the field using a stainless steel trowel and bowl. The trowel and bowl shall be decontaminated with a non-phosphate detergent (e.g., Alconox®) and potable water wash solution followed by a distilled water rinse between sampling locations).

Import criteria are restricted-residential SCOs and protection of groundwater quality SCOs or lesser as published in 6NYCRR Part 375-6.8(b).

4.6 Remedial Activities Support Documents

4.6.1 Community Air Monitoring

Real-time community air monitoring will be performed during remedial activities at the Site in accordance with the CAMP (see Appendix G). Particulate monitoring will be performed along the downwind perimeter of the work area during subgrade excavation, backfilling, grading, and soil/fill handling activities in accordance with the CAMP. The CAMP is consistent with the requirements for community air monitoring at remediation sites as established by the NYSDOH and NYSDEC. Accordingly, it follows procedures

and practices outlined under NYSDOH's Generic CAMP (Appendix 1A of DER-10) and Fugitive Dust and Particulate Monitoring (Appendix 1B of DER-10).

4.7 Health and Safety Protocols

Benchmark has prepared a HASP for use by its employees in accordance with 40 CFR 300.150 of the NCP and 29 CFR 1910.120. The HASP, provided as Appendix G, includes the following site-specific information:

- Hazard assessment
- Training requirements
- Definition of exclusion, contaminant reduction, and other work zones
- Monitoring procedures for Site operations
- Safety procedures
- Personal protective clothing and equipment requirements for various field operations
- Disposal and decontamination procedures

The HASP also includes a contingency plan that addresses potential site-specific emergencies and a CAMP that describes required particulate monitoring to protect the neighboring community during intrusive site remediation activities.

Health and safety activities will be monitored throughout the remedial field activities. A member of the field team will be designated to serve as the Site Safety and Health Officer (SSHO) throughout the field program. This person will report directly to the Project Manager and the Corporate Health and Safety Coordinator. The HASP will be subject to revision as necessary, based on new information that is discovered during the remedial activities.

4.8 Citizen Participation Activities

NYSDEC will coordinate and lead community relations throughout the course of the project with support from Benchmark as requested. A Citizen Participation (CP) Plan will be prepared by Benchmark and approved by NYSDEC. A copy of the CP Plan will be placed in the Niagara Branch of the Buffalo and Erie County Public Library, the designated project document repository. The NYSDEC, with input from Benchmark, will issue project fact sheets to keep the public informed of remedial activities.

4.9 Reporting

4.9.1 Remedial Activities Reporting

Benchmark will provide full-time on-site inspection to document all remedial action activities. Monitoring and documentation of the remedial action activities will include: daily reports of activities; community air monitoring results; pre- and post-excavation sampling and analysis; and progress photographs and sketches.

4.9.2 Construction Monitoring

Standard daily reporting procedures will include preparation of an Inspector's Daily Report and, when appropriate, problem identification and corrective measures reports. Appendix H contains sample project documentation forms. Information that may be included on the daily report form includes:

- Processes and locations of construction under way
- Equipment and personnel working in the area, including subcontractors
- Number and type of truckloads of soil/fill removed from the Site
- Approximate sampling locations (sketches) or GPS (Trimble) coordinates and sample designations for pre-excavation characterization and post-excavation verification
- Grid locations and depths being excavated

The completed reports will be available on-site and submitted to the NYSDEC as part of the Final Engineering Report. The NYSDEC will be promptly notified of problems requiring modifications to this RAWP prior to proceeding or completion of the construction item.

Photo documentation of the remedial activities will be prepared by a field representative throughout the duration of the project as necessary to convey typical work activities, changed conditions, and/or special circumstances.

4.10 Final Engineering Report

A Final Engineering Report (FER) will be prepared at the conclusion of remedial activities. The FER will include the following information and documentation, consistent with the NYSDEC's DER-10 Technical Guidance for Site Remediation (Ref. 4):

- Introduction and background
- A Site or area planimetric map showing the parcel(s) remediated, including significant site features
- A Site map showing the lateral limits of any excavations
- Tabular summaries of unit quantities including: volume of soil excavated and disposition of excavated soil
- Planimetric map showing location of all verification and other sampling locations with sample identification labels/codes
- Tabular comparison of verification and other sample analytical results to SCOs. An explanation shall be provided for any results exceeding acceptance criteria
- Documentation on the disposition of impacted soil removed from the Site
- Copies of daily inspection reports and, if applicable, problem identification and corrective measure reports
- Photo documentation of remedial activities
- Text describing the remedial activities performed; a description of any deviations from the RAWP and associated corrective measures taken; and other pertinent information necessary to document that the Site activities were carried out in accordance with this RAWP

In addition, Benchmark will subcontract for third-party data review of post-excavation verification data by a qualified, independent data validation expert. Specifically, a DUSR will be prepared, with appropriate data qualifiers added to the results. The DUSR format will follow the NYSDEC's September 1997 DUSR guidelines and DER-10 guidance (Ref. 4). The DUSR and any necessary qualifications to the data will be appended to the FER.

4.11 Site Management Plan

For any BCP site not cleaned up to NYSDEC Part 375 unrestricted SCOs, preparation of a Site Management Plan (SMP) that describes site-specific IC/ECs is a required component of the final remedy. Therefore, an SMP will be prepared as part of the final remedy for the Site. Consistent with NYSDEC BCP requirements, components of the SMP will include:

- ***Engineering and Institutional Controls Plan.*** Engineering controls include any physical barrier or method employed to actively or passively contain, stabilize, or monitor contaminants; restrict the movement of contaminants; or

eliminate potential exposure pathways to contaminants. Institutional controls at the Site will include groundwater use restrictions and restrictions for use of the Site (i.e., residential or commercial purposes).

- ***Operation and Maintenance Plan*** will not be a requirement of the SMP as there are no systems containing mechanical components that will be operated, monitored, and maintained.
- ***Excavation Work Plan*** to assure that future intrusive activities and soil/fill handling at the Site are completed in a safe and environmentally responsible manner unless the Site has been remediated to unrestricted SCOs.
- ***Site Monitoring Plan*** that includes: provisions for a groundwater monitoring plan and a Site-wide inspection program to assure that the IC/ECs have not been altered and remain effective.
- ***Environmental Easement*** filed with Erie County.

4.12 Project Schedule

The anticipated project schedule for the major tasks to be performed during implementation of the RAWP is as follows:

- *December 2014* – Conduct pre-excavation waste profile sampling
- *Late January 2015* – Initiate remedial excavation fieldwork
- *March-August 2015* – Construct building and place cover systems
- *May 2015* – Submit SMP
- *September 15, 2015* – Submit FER

5.0 REFERENCES

1. Clayton Group Services, Inc. Excerpts of the January 2000 *Phase I Environmental Site Assessment and Trench Sampling Report of the Lamar Outdoor Advertising Facility, 295 Maryland Street, Buffalo, New York*.
2. Benchmark Environmental Engineering & Science, PLLC. *Phase I Environmental Site Assessment at 295 Maryland Street & 121-129 West Avenue*. 2001.
3. Benchmark Environmental Engineering & Science, PLLC. *Phase II Environmental Site Investigation Report, 295 Maryland Street, Buffalo, NY*. November 2001.
4. New York State Department of Environmental Conservation. *DER-10/Technical Guidance for Site Investigation and Remediation*. May 3, 2010.
5. New York State Department of Environmental Conservation. *CP-51/Soil Cleanup Guidance*. October 21, 2010.

TABLES

TABLE 1
2013 PRE-REMEDIAL INVESTIGATION - TEST PIT FIELD OBSERVATIONS

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Test Pit Number	Basement Present (Y/N)	Basement Depth (ft)	Concrete Slab Present (Y/N)	Fill		Native Soil		Sample Depth	PID Readings
				Depth	Description	Depth	Description		
TP-1-13	Y	4.5'	N	0-4.5'	Brown, moist, lean clay (low plasticity fines) with some cinders and ash, few metal and wood, stiff	4.5-9'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-2-13	Y	5.0'	Y	0-4.0'	Brown and gray, moist, sandy silt (non-plastic fines with some fine to coarse sand) with some fill (brick, concrete, metal pieces, cinders and ash)	4-7.5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-3-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with little fill (cinders, ash, and brick), stiff	4-5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-4-13	N	N	N	0-3.5'	Brown, moist, lean clay (low plasticity fines) with few fill (brick, rocks, and metal pieces)	3.5-6.5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles	0-3'	0
TP-5-13	N	N	N	0-3'	Brown, moist, lean clay (low plasticity fines) with few fill (bricks and ash), stiff	3-4'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles	0-3'	0
TP-6-13	N	N	N	0-5.5'	Brown, moist, lean clay (low plasticity fines) with few fill (brick, concrete and trace ash), stiff	5.5-11'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles, moderate odor	7-9'	0-5.5' = 0 5.5-7' = 400 7-9' = 1000 9-11' = 1300
TP-7-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with few fill (brick and concrete), stiff	3-7'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles	0-3'	0
TP-8-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with some fill (basement rocks, bricks, and ash), stiff	4-5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-9-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with few fill (bricks, concrete and trace metal pieces), stiff	4-14'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles, moderate odor	9-12'	0-4' = 0 4-6' = 300 6-11' = 400 11-14' = 500
TP-10-13	N	N	N	0-3.5'	Brown, moist, lean clay (low plasticity fines) with some fill (bricks, concrete, metal pieces, wood pieces, and ash), stiff	3.5-5.5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-11-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with some fill (bricks, concrete, metal pieces, wood pieces, cinders and ash), stiff	4-6'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-12-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with some fill (cinders, ash, bricks, and metal pieces), stiff	4-7'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0

TABLE 1
2013 PRE-REMEDIAL INVESTIGATION - TEST PIT FIELD OBSERVATIONS

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Test Pit Number	Basement Present (Y/N)	Basement Depth (ft)	Concrete Slab Present (Y/N)	Fill		Native Soil		Sample Depth	PID Readings
				Depth	Description	Depth	Description		
TP-13-13	N	N	N	0-3'	Black and gray, moist, sandy gravel with little cinders and ash, moderate odor, loose	3-9'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles, moderate odor from 3 to 7', faint odor from 7 to 9'	8-9'	0-3' = 300 3-7' = 500 7-9' = 25
TP-14-13	N	N	N	0-3'	Brown, moist, lean clay (low plasticity fines) with some fill (bricks, basement rocks, wood pieces, metal pieces), stiff	3-5.5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-15-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with some fill (bricks, wood pieces, metal pieces, trace cinders and ash), stiff	4-5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-16-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with some fill (bricks, wood pieces, metal pieces, trace cinders and ash), stiff	4-5.5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-17-13	Y	6'	Y	0-6'	Bricks and concrete with some lean clay and trace metal, stiff	6-8'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-18-13	Y	6'	Y	0-6'	Brown and black, moist, lean clay (low plasticity fines) with some fill (concrete, bricks, shingles, cinders and ash), stiff	6-8'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-19-13	Y	7'	N	0-7'	Concrete with some cinders, ash, brick and trace metal pieces	7-8.5'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-20-13	N	N	N	0-9+'	Pea stone with little concrete, few lean clay, and trace metal pieces, loose		Not encountered		0
TP-21-13	Y	5.5'	Y	0-5.5'	Brown, moist, lean clay (low plasticity fines) with some fill (concrete, bricks, and trace wood pieces, cinders and ash), stiff	5.5-7'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles		0
TP-22-13	Y	5.5'	Y	0-5.5'	Brown, moist, lean clay (low plasticity fines) with some fill (concrete, bricks, and trace metal pieces), stiff	5.5-8'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles	6-8'	0
TP-23-13	N	N	N	0-1'	Dark brown, moist, lean clay (low plasticity fines) with few fill (bricks and concrete), stiff	1-8'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles	0.5-3'	0-1' = 0 1-5' = 1.7 5-8' = 0
TP-24-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with few fill (bricks, concrete and trace ash), stiff	4-8'	Reddish brown, moist, lean clay (medium plasticity fines) with few sub-rounded fine gravel, very stiff, gray mottles	0.5-4'	0
TP-25-13	N	N	N	0-4'	Brown, moist, lean clay (low plasticity fines) with some fill (bricks, concrete, few cinders and ash), stiff			0.5-4'	0

TABLE 2
2013 PRE-REMEDIAL INVESTIGATION - ANALYTICAL PROGRAM SUMMARY

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Test Pit Number	Depth Sampled/ Screened (fbgs)	Analysis								
		TCL VOCs	TCL BN SVOCs	Select PAHs ¹	PCBs	TAL Metals	Select Metals ²	Pesticides	Herbicides	TCLP VOCs
TP-4-13	0-3'	X	X		X	X		X	X	
TP-5-13	0-3'	X	X		X	X		X	X	
TP-6-13	7-9'	X	X							X
TP-7-13	0-3'			X	X		X			
TP-9-13	9-12'	X	X							X
TP-13-13	8-9'	X	X							
TP-22-13	6-8'	X	X		X	X		X	X	
TP-23-13	0.5-3'			X	X		X			
TP-24-13	0.5-4'			X	X		X			
TP-25-13	0.5-4'			X	X		X			

Notes:

1. Includes benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3)pyrene.
2. Includes arsenic, barium, cadmium, copper, lead, mercury, silver, and zinc.

TABLE 3
SUMMARY OF SEPTEMBER 2010 GROUNDWATER ELEVATIONS

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Monitoring Location	Grade	Top of PVC Riser Elev.	18-Sep-10		23-Sep-10	
			Water Level from Top of Riser	Groundwater Elevation	Water Level from Top of Riser	Groundwater Elevation
MW-1	492.4	491.78	7.94	483.84	8.09	483.69
MW-2	493.4	495.85	14.78	481.07	15.00	480.85
MW-3	497.2	499.49	15.08	484.41	15.25	484.24
MW-4	497.5	499.83	14.07	485.76	14.46	485.37

Notes:

1. All wells were surveyed on 10/12/10 with site specific datum of 500 feet.

TABLE 4
SUMMARY OF SOIL/FILL ANALYTICAL RESULTS

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Parameter	Part 375 SCOs					2001 Test Pit Investigation																					2010 Boring Program		2013 Pre-Remedial Investigation											
	USCO	RSCO	RRSCO	CSCO	ISCO	TP-1 0-0.5'	TP-1 0.5-8'	TP-2 0-0.5'	TP-2 0.5-8'	TP-3 0-0.5'	TP-3 0.5-8'	TP-4 0-0.5'	TP-4 0.5-8'	TP-5 0-0.5'	TP-5 0.5-8'	TP-6 0-0.5'	TP-6 0.5-8'	TP-7 0-0.5'	TP-7 0.5-5.5'	TP-8 0-0.5'	TP-8 0.5-8'	TP-9 0-0.5'	TP-9 0.5-8'	TP-10 0-0.5'	TP-10 0.5-8'	EM-6 Composite	MW-3 4-6'	SB-5 0-2'	TP-4-13 0-3'	TP-5-13 0-3'	TP-6-13 7-9'	TP-7-13 0-3'	TP-9-13 9-12'	TP-13-13 8-9'	TP-22-13 6-8'	TP-23-13 0.5-3'	TP-24-13 0.5-4'	TP-25-13 0.5-4'		
Volatile Organic Compounds (µg/kg)																																								
Benzene	60	2900	4800	44,000	89,000	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	0.8	NA	--	NA	--	3	--	--	--	--	--	NA	--	--	--	NA	NA	NA		
Acetone	50	100,000	100,000	500,000	1,000,000	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	--	--	--	--	--	--	NA	--	32	--	NA	NA	NA		
2-butanone	None	None	None	None	None	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	--	--	--	--	--	NA	--	3 J	--	NA	NA	NA			
Ethylbenzene	1,000	30,000	41,000	390,000	780,000	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	--	--	--	--	NA	62	--	--	NA	NA	NA				
Bromomethane	None	None	None	None	None	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	--	--	--	NA	97 J	--	--	NA	NA	NA					
p/m-xylene	260	100,000	100,000	500,000	1,000,000	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	--	--	--	NA	92 J	--	--	NA	NA	NA					
Isopropylbenzene	None	None	None	None	None	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	--	--	--	NA	46 J	1.3	--	NA	NA	NA					
Methylene chloride	50	5,100	100,000	500,000	1,000,000	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	--	7.9	3.5	--	--	--	--	NA	--	--	NA	NA	NA		
TCLP Volatile Organic Compounds (µg/L)																																								
No Compounds Detected	None	None	None	None	None	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	NA	--	NA	NA	NA	NA	NA		
Semi-Volatile Organic Compounds (µg/kg)																																								
2-Methylnaphthalene	None	None	None	None	None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	--	--	--	--	--	--	--	--	18,000	--	--	NA	NA	NA		
Acenaphthene	20,000	100,000	100,000	500,000	1,000,000	--	--	--	--	--	--	--	--	--	--	--	98	200	--	440	200	2,500	280	4,700	930	--	--	20	80 J	58 J	--	62 J	960	--	--	--	4,900			
Anthracene	100,000	100,000	100,000	500,000	1,000,000	--	--	--	--	220	--	2,100	--	330	--	280	98	200	--	440	200	2,500	280	4,700	930	--	--	20	80 J	58 J	--	62 J	960	--	--	--	4,900			
Benzo(a)anthracene	1,000	1,000	1,000	5,600	11,000	150	--	85	--	840	--	4,900	110	1,200	--	1,800	290	1,700	290	2,000	900	8,700	760	17,000	2,000	2,700	--	73	320	240	--	220	100 J	--	64 J	52 J	--	4,800		
Benzo(a)pyrene	1,000	1,000	1,000	1,000	1,100	110	--	--	--	750	--	3,600	--	1,200	--	2,100	250	3,000	370	2,000	900	7,100	670	13,000	1,600	--	--	59	300	260	--	200	--	--	53 J	57 J	--	3,400		
Benzo(b)fluoranthene	1,000	1,000	1,000	5,600	11,000	--	--	--	--	1,100	--	5,100	--	1,800	--	3,000	360	3,900	350	3,000	1,300	9,900	1,000	19,000	2,600	--	--	84	350	270	--	250	54 J	--	65 J	77 J	--	4,300		
Benzo(g,h,i)perylene	100,000	100,000	100,000	500,000	1,000,000	--	--	--	--	330	--	1,400	--	770	--	1,800	99	2,700	720	1,300	470	3,300	260	5,700	680	--	--	47	180	170	--	--	--	--	NA	NA	NA			
Benzo(k)fluoranthene	800	1,000	3,900	56,000	110,000	--	--	--	--	410	--	1,900	--	540	--	900	140	1,200	--	1,100	540	3,800	330	8,100	980	--	--	31	180	130	--	120	--	--	66 J	40 J	--	2,000		
Biphenyl	None	None	None	None	None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,600	--	--	NA	NA	NA			
Bis-2-ethylhexyl phthalate	None	None	None	None	None	--	--	--	--	--	--	--	--	--	--	--	250	970	--	--	--	--	--	--	--	--	--	120	--	--	--	--	--	--	NA	NA	NA			
Butyl benzyl phthalate	None	None	None	None	None	--	--	--	--	--	--	--	--	--	--	--	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA			
Carbazole	None	None	None	None	None	--	--	--	--	--	--	--	150	--	--	--	--	--	--	--	--	--	160	--	400	--	--	--	43 J	--	--	--	120 J	--	--	NA	NA	NA		
Chrysene	1,000	1,000	3,900	56,000	110,000	120	--	75	--	710	--	4,100	98	1,100	--	1,600	240	1,700	420	1,700	830	7,400	660	14,000	1,700	2,800	--	77	330	210	--	240	110	--	--	60 J	--	4,200		
Dibenzo (a,h) anthracene	330	330	330	560	1,100	--	--	--	--	--	--	--	--	--	--	420	--	610	--	--	--	--	--	--	--	--	--	--	--	50 J	55 J	--	--	--	--	--	560			
Dibenzofuran	7,000	14,000	59,000	None	None	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	230	--	--	--	--	--	--	--	--	1,400	--	--	NA	NA	NA		
Di-n-octyl phthalate	None	None	None	None	None	--	--	--	73	--	--	--	--	--	--	--	--	--	--	--	--	--	130	--	--	--	--	--	--	--	--	--	--	--	NA	NA	NA			
Fluoranthene	100,000	100,000	100,000	500,000	1,000,000	230	--	--	--	1,700	--	13,000	240	2,500	--	2,200	570	1,400	320	3,600	2,400	19,000	1,600	38,000	4,800	--	--	150	640	280	37 J	--	700	--	120	NA	NA	NA		
Fluorene	30,000	100,000	100,000	500,000	1,000,000	--	--	--	--	--	--	610	--	72	--	61	--	--	--	--	61	--	86	1,200	250	--	--	--	--	--	--	--	2,400	130 J	--	NA	NA	NA		
Indeno(1,2,3-cd)pyrene	500	500	500	5,600	11,000	--	--	--	--	390	--	1,700	--	830	--	1,800	--	3,000	410	1,300	550	4,300	290	7,000	740	--	--	43	190	180	--	130 J	--	--	--	42 J	--	1,900		
Naphthalene	12,000	100,000	100,000	500,000	1,000,000	--	--	--	--	61	--	--	--	--	--	--	--	--	--	--	--	--	--	150	--	--	--	--	--	--	--	--	17,000	--	--	NA	NA	NA		
Phenanthrene	100,000	100,000	100,000	500,000	1,000,000	190	--	79	--	980	63	10,000	160	1,500	--	1,200	510	740	250	2,200	1,300	13,000	1,200	25,000	4,000	--	--	100	310	220	--	--	4,800	--	78 J	NA	NA	NA		
Pyrene	100,000	100,000	100,000	500,000	1,000,000	230	--	130	--	1,600	110	10,000	190	3,600	--	6,400	530	5,500	1,900	4,800	2,200	18,000	1,500	35,000	4,100	--	--	120	530	260	--	--	580	--	100 J	NA	NA	NA		
TOTAL PAHs						800	--	369	0	7,330	173	45,410	558	12,942	--	21,361	2,517	24,250	4,710	19,840	9,251	78,000	7,036	149,700	19,830	5,500	--	654	2,820	2,053	--	1,222	12,004	370	426	328	--	25,160		
PCBs (µg/kg)																																								
Total PCBs	100	1,000	1,000	1,000	25,000	--	--	--	--	--	42	12	--	48	--	61	--	57	--	91	--	211	--	765	--	--	--	--	--	--	NA	--	NA	NA	--	--	--	--		
PCB 1254	None	None	None	None	None	--	--	--	--	--	42	12	--	48	--	61	--	57	--	91	--	211	--	765	--	--	--	--	--	NA	--	NA	NA	--	--	--	--			
Pesticides (ug/kg)																																								
4,4'-DDE	3.3	1800	8900	62,000	120,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA																	

TABLE 5
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Parameter ¹	Sample ID and Date									GWQS/GV ²
	MW-1		MW-2		MW-3		MW-4		Blind Dup ³	
	(9/23/10)	(3/1/11)	(9/23/10)	(3/1/11) ⁴	(9/23/10)	(3/1/11)	(9/23/10)	(3/1/11) ⁴	(3/1/11)	
Volatile Organic Compounds (ug/L)										
1,2,4-Trimethylbenzene	ND	ND	ND	19	ND	ND	ND	ND	ND	5
1,3,5-Trimethylbenzene	--	ND	--	1.2	--	ND	--	ND	ND	5
Acetone	5	ND	ND	ND	ND	ND	ND	ND	ND	50
Benzene	ND	ND	38	20	ND	ND	ND	ND	ND	1
Chloroform	2	ND	4.2	ND	5.4	ND	2.8	ND	ND	7
Ethylbenzene	ND	ND	39	46	ND	ND	ND	ND	ND	5
Isopropylbenzene	ND	ND	ND	4.6	ND	ND	ND	ND	ND	5
m/p-Xylenes	--	ND	ND	43	ND	ND	ND	ND	ND	5
Methyl-t-Butyl Ether (MTBE)	ND	ND	ND	2.3	ND	ND	ND	ND	ND	10
o-Xylenes	--	ND	--	35	ND	ND	ND	ND	ND	5
Toluene	ND	ND	18	14	ND	ND	ND	ND	ND	5
Xylenes(Total)	ND	ND	97	78	ND	ND	ND	ND	ND	5
Semi-Volatile Organic Compounds (ug/L)										
2-Methylphenol	ND	--	1.3	--	ND	--	ND	--	--	5
Acetophenone	ND	--	2.8	--	1.1	--	ND	--	--	--
Benzo(a)anthracene	ND	--	0.35	ND	ND	--	ND	--	--	0.002
Butyl benzyl phthalate	0.51	--	0.71	--	0.58	--	0.72	--	--	50
Di-n-butyl phthalate	0.51	--	0.65	--	0.55	--	1.1	--	--	50
Fluoranthene	ND	--	0.47	ND	ND	--	ND	--	--	50
Naphthalene	ND	--	21	92	ND	--	ND	--	--	10
Phenanthrene	ND	--	0.58	ND	0.46	--	ND	--	--	50
Pyrene	ND	--	0.42	ND	ND	--	ND	--	--	50
Pesticides (ug/L)										
4,4'-DDD	ND	--	ND	--	0.23	0.04 J	0.25	0.036 J	0.022 J	0.3
4,4'-DDT	0.082	--	ND	--	ND	0.017 J	0.2	ND	ND	0.2
alpha-BHC	ND	--	ND	--	0.18	ND	ND	ND	ND	0.01
beta-BHC	ND	--	0.06	--	0.13	ND	0.21	ND	ND	0.04
Dieldrin	ND	--	ND	--	ND	ND	0.14	0.027 J	0.031 J	0.004
Endosulfan I	ND	--	ND	--	ND	ND	0.07	ND	ND	--
Endosulfan II	0.069	--	0.11	--	0.14	ND	0.14	0.016 J	ND	--
Endosulfan sulfate	ND	--	ND	--	ND	ND	0.092	ND	ND	--
Endrin aldehyde	ND	--	ND	--	ND	ND	ND	0.022 J	ND	5
gamma-Chlordane	0.036	--	0.041	--	0.13	0.03 J	0.15	ND	ND	0.05
Heptachlor	ND	--	ND	--	0.11	ND	0.14	ND	ND	0.04
Heptachlor epoxide	0.018	--	ND	--	ND	ND	ND	ND	ND	0.03
Methoxychlor	0.059	--	0.098	--	0.2	ND	0.16	0.024 J	ND	35
Inorganic Compounds (mg/L)										
Barium	0.0542	--	0.332	--	0.0985	--	0.0687	--	--	1
Calcium	75.6	--	119	--	123	--	150	--	--	--
Magnesium	45.3	--	107	--	98.3	--	151	--	--	--
Manganese	0.0739	--	0.204	--	0.195	--	0.315	--	--	0.3
Nickel	ND	--	ND	--	0.0159	--	ND	--	--	0.1
Potassium	4.5	--	6.41	--	10	--	12.2	--	--	--
Sodium	25.1	--	59.2	--	88.8	--	34.4	--	--	20

Notes:

- Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
- NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV), 6 NYCRR Part 703.
- Blind Duplicate collected at monitoring well MW-3.
- MS/MSD collected at monitoring wells MW-2 and MW-4.

Bold Exceeds the NYSDEC TOGS 1.1.1 Groundwater Quality Standard or Guidance Value

Definitions:

N/A = Not Available

ND = Not Detected

J = Result estimated below the quantitation limit.

"--" = Not analyzed or no GWQS/GV

TABLE 6
SUMMARY OF SITE SPECIFIC STANDARDS, CRITERIA AND GUIDANCE (SCGs)

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

SCGs	Applicability to Site
6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes	YES
DER 10/Technical Guidance for Site Investigation and Remediation (May 3, 2010)	YES
CP-51/Soil Cleanup Guidance (October 21, 2010) NYSDEC Policy	YES
DER 2/Making Changes to Selected Remedies April 1, 2008	Potentially applicable
6 NYCRR Part 375 - Environmental Remediation Programs (December 2006)	YES
6 NYCRR Parts 700-706 - Water Quality Standards	YES
6 NYCRR Part 182 - Endangered & Threatened Species of Fish & Wildlife	Not Applicable as no endangered or threatened species of fish or wildlife
6 NYCRR Part 608 - Use and Protection of Waters	YES
6 NYCRR Part 661 - Tidal Wetlands - Land Use Regulations	Not Applicable, not in tidal zone.
6 NYCRR Part 663 - Freshwater Wetlands Maps and Classification	Not Applicable, wetlands are not within 1/2 mile of site.
6 NYCRR Part 257 - Air Quality Standards	Potentially applicable
10 NYCRR Part 5 of the State Sanitary Code - Drinking Water Supplies (May 1998)	Not applicable
29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response	Potentially applicable
6 NYCRR Part 175 - Special Licenses and Permits--Definitions and Uniform Procedures	Potentially applicable
SPOTS #14 - Site Assessments at Bulk Storage Facilities (August 1994)	YES
TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations	YES
Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (October 1994)	Not applicable, no receptors or nearby fish or wildlife.
Technical Guidance for Screening Contaminated Sediments (January 1999)	Not applicable, no sediment receptors.
Niagara River Biota Contamination Project: Fish Flesh Criteria for Piscivorous Wildlife (July 1987)	Not applicable, no receptors or nearby fish or wildlife.
Wildlife Toxicity Assessment for Cadmium in Soils (May 1999)	Not applicable, no receptors or nearby wildlife.
Air Guide 1 - Guidelines for the Control of Toxic Ambient Air Contaminants	Potentially applicable
The 10 ppt Health Advisory Guideline for 2,3,7,8-TCDD in Sportfish Flesh	Not applicable, no receptors or nearby fishing zones.
The 1 ppm Health Advisory Guideline for Cadmium in Sportfish Flesh	Not applicable, no receptors or nearby fishing zones.
Criteria for the Development of Health Advisories for Sportfish Consumption	Not applicable, no receptors or nearby fishing zones.
NYSDOH Indoor Air Sampling & Analysis Guidance (August 8, 2001 or subsequent update)	Not applicable
NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (Final October 2006)	Not applicable
6 NYCRR Part 376 - Land Disposal Restrictions	YES
19 NYCRR Part 600 - Waterfront Revitalization and Coastal Resources	Not applicable, not on waterfront or coast.
TAGM 4051 - Early Design Strategy (August 1993)	Not applicable
CP-43 - Groundwater Monitoring Well Decommissioning Policy (November 2009)	YES
Freshwater Wetlands Regulations - Guidelines on Compensatory Mitigation (October 1993)	Not Applicable, wetlands are not within 1/2 mile of site.
USEPA Office of Solid Waste and Emergency Response Directive 9355.047FS Presumptive Remedies: Policy and Procedures (September 1993)	Not applicable
USEPA Office of Solid Waste and Emergency Response Directive 9355.048FS Presumptive Remedies: Site Characterization and Technology Selection for CERCLA sites with Volatile Organic Compounds in Soils (September 1993)	Not applicable
USEPA Office of Solid Waste and Emergency Response Directive 9355.049FS Presumptive Remedies for CERCLA Municipal Landfills (September 1993)	Not applicable, not a municipal landfill.

TABLE 6
SUMMARY OF SITE SPECIFIC STANDARDS, CRITERIA AND GUIDANCE (SCGs)

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

SCGs	Applicability to Site
DER-15 - Presumptive/Proven Remedial Technologies (February 2007)	YES
6 NYCRR Part 612 - Registration of Petroleum Storage Facilities (February 1992)	Not applicable
6 NYCRR Part 613 - Handling and Storage of Petroleum (February 1992)	Not applicable
6 NYCRR Part 614 - Standards for New and Substantially Modified Petroleum Storage Tanks (February 1992)	Not applicable
6 NYCRR Subpart 374-2 - Standards for the Management of Used Oil (November 1998)	Not applicable
40 CFR Part 280 - Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks	Not applicable
Spill Response Guidance Manual	Not applicable
Permanent Closure of Petroleum Storage Tanks (July 1988)	Not applicable
NYSDOH Environmental Health Manual CSFP-530 - "Individual Water Supplies - Activated Carbon Treatment Systems"	Not applicable
40 CFR Part 144 - Underground Injection Control Program	Not applicable
10 NYCRR Part 67 - Lead	Not applicable
12 NYCRR Part 56 - Industrial Code Rule 56 (Asbestos)	Not applicable
6 NYCRR Part 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities (November 1998)	Potentially applicable
6 NYCRR Subpart 373-4 - Facility Standards for the Collection of Household Hazardous Waste and Hazardous Waste from Conditionally Exempt Small Quantity Generators	Potentially applicable
6 NYCRR Subpart 374-1 - Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities (November 1998)	Potentially applicable
6 NYCRR Subpart 374-3 - Standards for Universal Waste (November 1998)	Potentially applicable
6 NYCRR Part 376 - Land Disposal Restrictions	Potentially applicable
19 NYCRR Part 600 - Waterfront Revitalization and Coastal Resources	Not applicable
6 NYCRR Part 750 through 758 - Implementation of NPDES Program in NYS	Not applicable
TAGM 4013 - Emergency Hazardous Waste Drum Removal/ Surficial Cleanup Procedures (March 1996)	Not applicable
TAGM 4059 - Making Changes To Selected Remedies (May 1998)	Potentially applicable
Citizen Participation in New York's Hazardous Waste Site Remediation Program: A Guidebook (June 1998)	YES
TOGS 1.3.8 - New Discharges to Publicly Owned Treatment Works	Not applicable
TOGS 2.1.2 - Underground Injection/Recirculation (UIR) at Groundwater Remediation Sites	Not applicable
State Coastal Management Policies	Not applicable
OSWER Directive 9200.4-17 - Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites (November 1997)	Potentially applicable
NYSDOH Environmental Health Manual CSFP-530 - "Individual Water Supplies - Activated Carbon Treatment Systems"	Not applicable

TABLE 7
COST ESTIMATE FOR UNRESTRICTED USE (TRACK 1) ALTERNATIVE 1

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Item	Quantity	Units	Unit Cost	Total Cost
<u>Impacted Soil/Fill Removal</u>				
Soil/Fill Excavation & Hauling	10900	CY	\$ 22.00	\$ 239,800
Disposal at TSDF (1.6 tons per CY)	17440	TON	\$ 30.00	\$ 523,200
Waste Characterization Analytical	10	EA	\$ 800.00	\$ 8,000
Post-Excavation Confirmatory Sampling	100	EA	\$ 400.00	\$ 40,000
Subtotal:				\$ 811,000
<u>Backfill Excavation with Approved Import Material</u>				
Haul, Place & Compact	8175	CY	\$ 15.00	\$ 122,625
Backfill Characterization and Sampling	10	EA	\$ 750.00	\$ 7,500
Subtotal:				\$ 130,125
<u>Excavation Water Handling and Treatment</u>				
Frac tanks, Filtration and GAC System, GAC Changeout	1	LS	\$ 20,000.00	\$ 20,000
Temporary Discharge Application Permit, Addt. Fee	1	LS	\$ 4,000.00	\$ 4,000
Excavation Water Analytical Sampling	3	EA	\$ 600.00	\$ 1,800
Subtotal:				\$ 25,800
Subtotal Capital Cost				\$ 966,925
Contractor Mobilization/Demobilization (5%)				\$ 48,346
Health and Safety (2%)				\$ 19,339
Engineering/Contingency (35%)				\$ 338,424
Total Cost				\$ 1,373,034

TABLE 8
COST ESTIMATE FOR RESTRICTED-RESIDENTIAL USE (TRACK 2) ALTERNATIVE 2

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Item	Quantity	Units	Unit Cost	Total Cost
<u>Impacted Soil/Fill Removal</u>				
Soil/Fill Excavation & Hauling	7400	CY	\$ 22.00	\$ 162,800
Disposal at TSDF (1.6 tons per CY)	11840	TON	\$ 30.00	\$ 355,200
Waste Characterization Analytical	8	EA	\$ 800.00	\$ 6,400
Post-Excavation Confirmatory Sampling	100	EA	\$ 400.00	\$ 40,000
Subtotal:				\$ 564,400
<u>Backfill Excavation with Approved Import Material</u>				
Haul, Place & Compact	5550	CY	\$ 15.00	\$ 83,250
Backfill Characterization and Sampling	8	EA	\$ 750.00	\$ 6,000
Subtotal:				\$ 89,250
<u>Excavation Water Handling and Treatment</u>				
Frac tanks, Filtration and GAC System, GAC Changeout	1	LS	\$ 20,000.00	\$ 20,000
Temporary Discharge Application Permit, Addt. Fee	1	LS	\$ 4,000.00	\$ 4,000
Excavation Water Analytical Sampling	3	EA	\$ 600.00	\$ 1,800
Subtotal:				\$ 25,800
Subtotal Capital Cost				\$ 679,450
Contractor Mobilization/Demobilization (5%)				\$ 33,973
Health and Safety (2%)				\$ 13,589
Engineering/Contingency (35%)				\$ 237,808
Total Capital Cost				\$ 964,819
<u>Institutional Controls</u>				
Environmental Easement	1	LS	\$ 15,000.00	\$ 15,000
Site Management Plan	1	LS	\$ 20,000.00	\$ 20,000
Subtotal:				\$ 35,000
<u>Annual Operation Maintenance & Monitoring (OM&M):</u>				
Annual Certification	1	Yr	\$ 2,500.00	\$ 2,500
Total Annual OM&M Cost				\$ 2,500
<u>Annual Certification OM&M Present Worth (PW):</u>				
Number of Years (n):				30
Interest Rate (I):				3%
p/A value:				19.6
Annual Certification OM&M Present Worth (PW):				\$ 49,000
Total OM&M Present Worth (PW):				\$ 51,500
Total Cost				\$ 1,052,000

TABLE 9
COST ESTIMATE FOR RESTRICTED-RESIDENTIAL USE (TRACK 4) ALTERNATIVE 3

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

Item	Quantity	Units	Unit Cost	Total Cost
<u>Impacted Soil/Fill Removal</u>				
Soil/Fill Excavation & Hauling	2060	CY	\$ 22.00	\$ 45,320
Disposal at TSDF (1.6 tons per CY)	3296	TON	\$ 30.00	\$ 98,880
Waste Characterization Analytical	8	EA	\$ 800.00	\$ 6,400
Post-Excavation Confirmatory Sampling	30	EA	\$ 400.00	\$ 12,000
Subtotal:				\$ 162,600
<u>Backfill Excavation with Approved Import Material¹</u>				
Haul, Place & Compact	0	CY	\$ 15.00	\$ -
Backfill Characterization and Sampling	0	EA	\$ 750.00	\$ -
Subtotal:				\$ -
<u>Excavation Water Handling and Treatment</u>				
Frac tanks, Filtration and GAC System, GAC Changeout	1	LS	\$ 20,000.00	\$ 20,000
Temporary Discharge Application Permit, Addt. Fee	1	LS	\$ 4,000.00	\$ 4,000
Excavation Water Analytical Sampling	3	EA	\$ 600.00	\$ 1,800
Subtotal:				\$ 25,800
<u>Soil Cover System</u>				
Import and Place 2-ft cover in Greenspace areas	2200	CY	\$ 20.00	\$ 44,000
Cover Soil Characterization and Sampling	4	EA	\$ 750.00	\$ 3,000
Subtotal:				\$ 47,000
Subtotal Capital Cost				\$ 235,400
Contractor Mobilization/Demobilization (5%)				\$ 11,770
Health and Safety (2%)				\$ 4,708
Engineering/Contingency (35%)				\$ 82,390
Total Capital Cost				\$ 334,268
<u>Institutional Controls</u>				
Environmental Easement	1	LS	\$ 15,000.00	\$ 15,000
Site Management Plan	1	LS	\$ 20,000.00	\$ 20,000
Subtotal:				\$ 35,000
<u>Annual Operation Maintenance & Monitoring (OM&M):</u>				
Annual Certification	1	Yr	\$ 2,500.00	\$ 2,500
Non-Routine Cover Maintenance	1	Yr	\$ 500.00	\$ 500
Total Annual OM&M Cost				\$ 3,000
<u>Annual Certification OM&M Present Worth (PW):</u>				
Number of Years (n):				30
Interest Rate (I):				3%
p/A value:				19.6
Annual Certification OM&M Present Worth (PW):				\$ 58,800
Total OM&M Present Worth (PW):				\$ 61,800
Total Cost				\$ 432,000

Notes:

1. Backfill not expected to be required based on cut/fill balance for building foundation and utilities

TABLE 10
COST ESTIMATE FOR RESTRICTED-RESIDENTIAL USE (TRACK 4) ALTERNATIVE 3A

Alternatives Analysis Report/Remedial Action Work Plan
295 Maryland Street Site

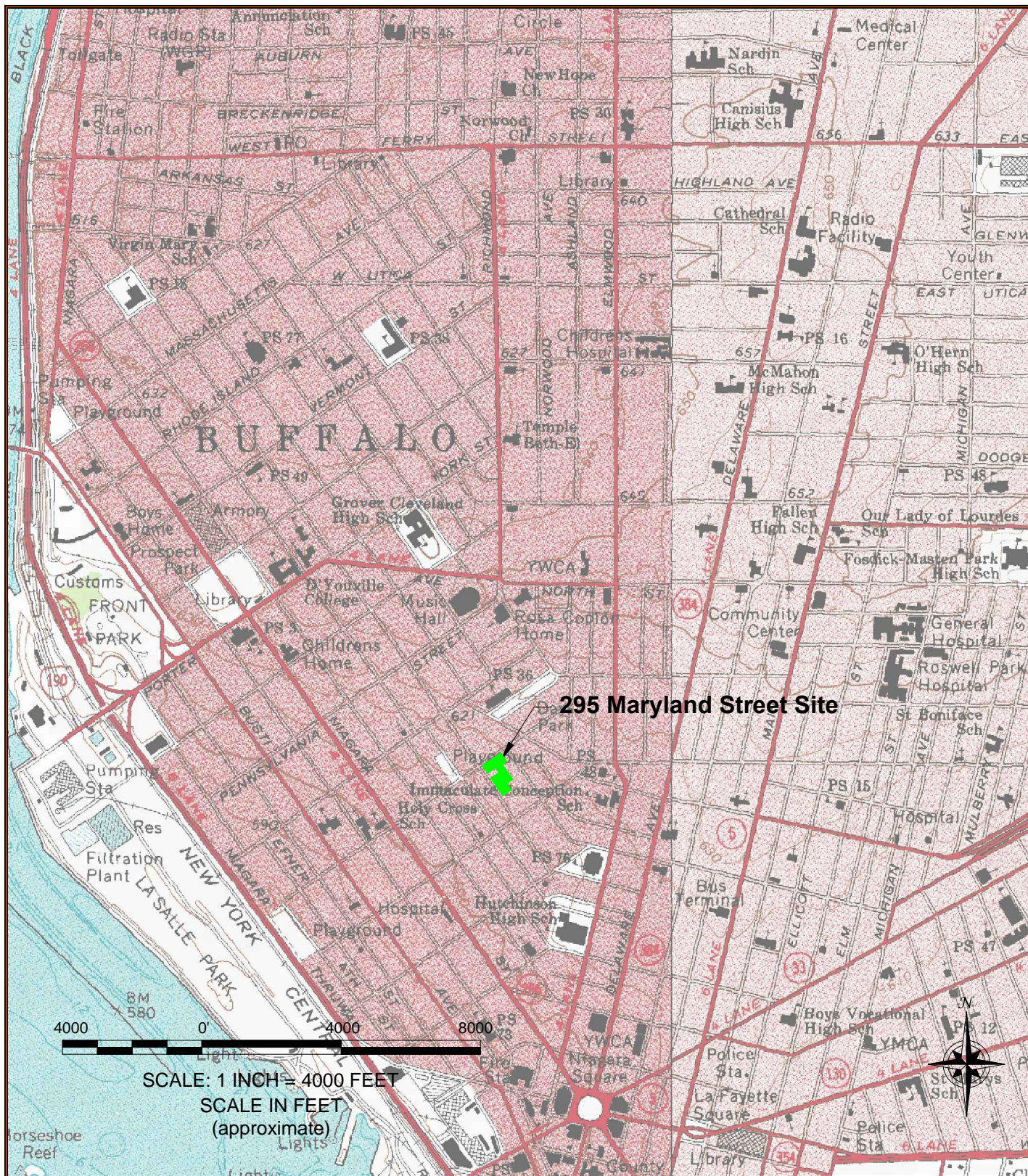
Item	Quantity	Units	Unit Cost	Total Cost
<u>Impacted Soil/Fill Removal</u>				
Soil/Fill Excavation & Hauling	2200	CY	\$ 22.00	\$ 48,400
Disposal at TSDF (1.6 tons per CY)	3520	TON	\$ 30.00	\$ 105,600
Waste Characterization Analytical	8	EA	\$ 800.00	\$ 6,400
Post-Excavation Confirmatory Sampling	46	EA	\$ 400.00	\$ 18,400
Subtotal:				\$ 178,800
<u>Backfill Excavation with Approved Import Material¹</u>				
Haul, Place & Compact	0	CY	\$ 20.00	\$ -
Backfill Characterization and Sampling	0	EA	\$ 750.00	\$ -
Subtotal:				\$ -
<u>Excavation Water Handling and Treatment</u>				
Frac tanks, Filtration and GAC System, GAC Changeout	1	LS	\$ 20,000.00	\$ 20,000
Temporary Discharge Application Permit, Addt. Fee	1	LS	\$ 4,000.00	\$ 4,000
Excavation Water Analytical Sampling	3	EA	\$ 600.00	\$ 1,800
Subtotal:				\$ 25,800
<u>Soil Cover System</u>				
Import and Place 2-ft cover in Greenspace areas	2200	CY	\$ 20.00	\$ 44,000
Cover Soil Characterization and Sampling	4	EA	\$ 750.00	\$ 3,000
Subtotal:				\$ 47,000
Subtotal Capital Cost				\$ 251,600
Contractor Mobilization/Demobilization (5%)				\$ 12,580
Health and Safety (2%)				\$ 5,032
Engineering/Contingency (35%)				\$ 88,060
Total Capital Cost				\$ 357,272
<u>Institutional Controls</u>				
Environmental Easement	1	LS	\$ 15,000.00	\$ 15,000
Site Management Plan	1	LS	\$ 20,000.00	\$ 20,000
Subtotal:				\$ 35,000
<u>Annual Operation Maintenance & Monitoring (OM&M):</u>				
Annual Certification	1	Yr	\$ 2,500.00	\$ 2,500
Non-Routine Cover Maintenance	1	Yr	\$ 500.00	\$ 500
Total Annual OM&M Cost				\$ 3,000
<u>Annual Certification OM&M Present Worth (PW):</u>				
Number of Years (n):				30
Interest Rate (I):				3%
p/A value:				19.6
Annual Certification OM&M Present Worth (PW):				\$ 58,800
Total OM&M Present Worth (PW):				\$ 61,800
Total Cost				\$ 455,000

Notes:

1. Backfill not expected to be required based upon cut/fill balance for building foundation and utilities

FIGURES

FIGURE 1



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

SITE LOCATION AND VICINITY MAP

AAR/RAWP

295 MARYLAND STREET SITE
BUFFALO, NEW YORK

PREPARED FOR
295 MARYLAND, LLC

PROJECT NO.: 0222-012-100

DATE: DECEMBER 2014

DRAFTED BY: RFL

FIGURE 2



SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)



LEGEND

- PARCEL BOUNDARY
- SITE BOUNDARY



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

SITE PLAN (AERIAL)
AAR/RAWP

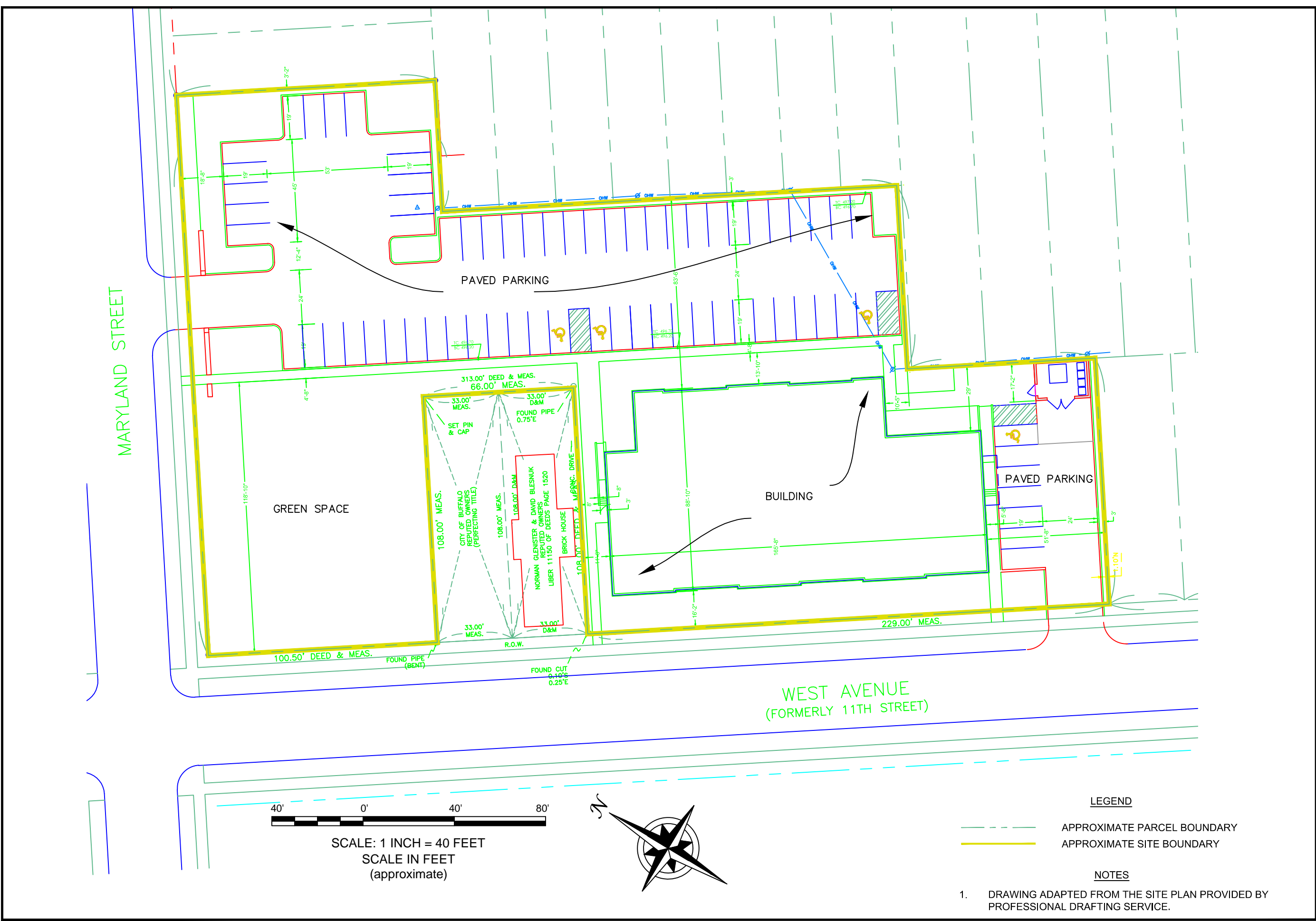
295 MARYLAND STREET SITE
BUFFALO, NEW YORK

PREPARED FOR
295 MARYLAND, LLC

PROJECT NO.: 0222-012-100

DATE: DECEMBER 2014

DRAFTED BY: RFL



REDEVELOPMENT PLAN

AAR/RAWP

295 MARYLAND STREET SITE

BUFFALO, NEW YORK

FIGURE 3

BENCHMARK

ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PREPARED FOR

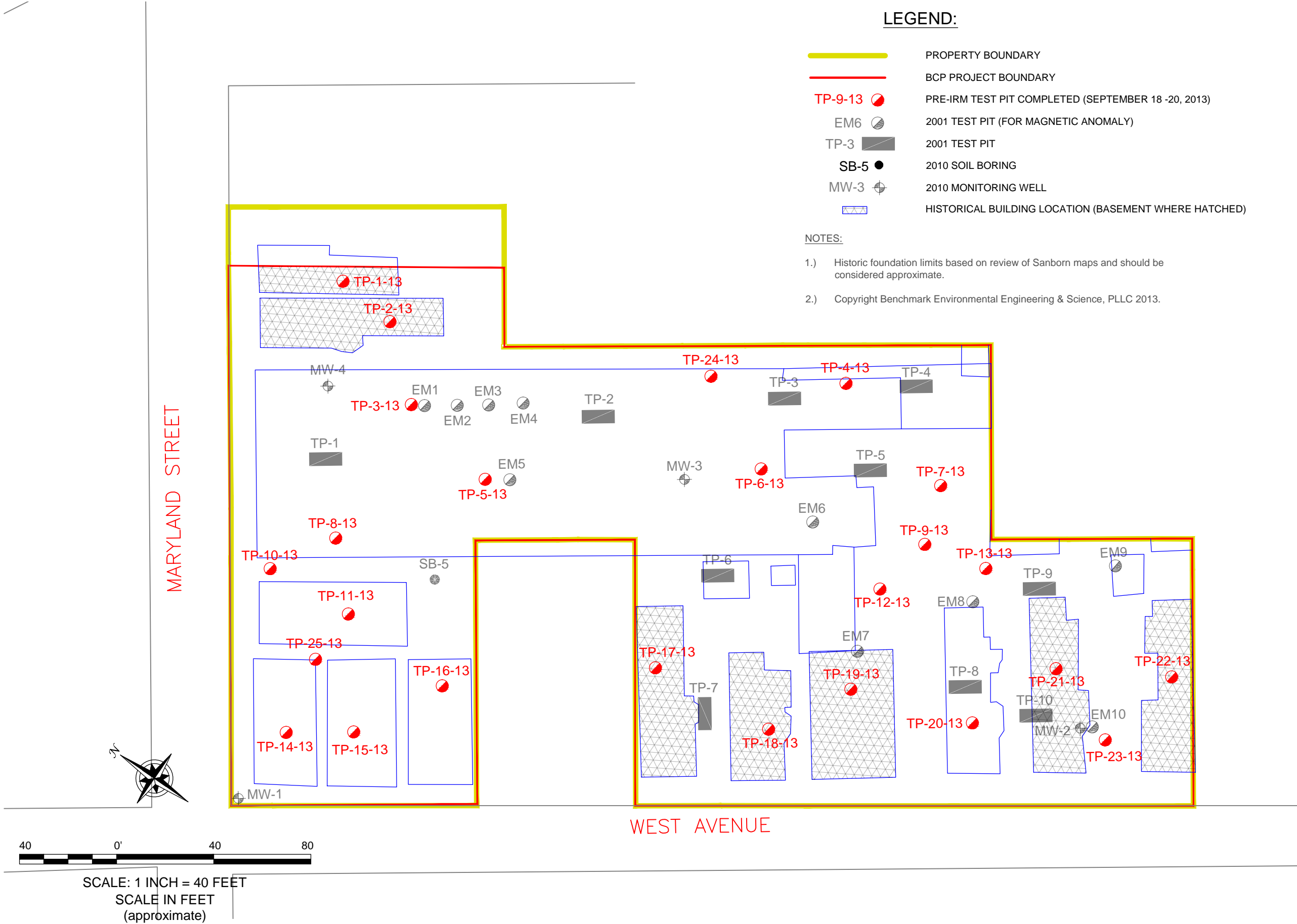
295 MARYLAND, LLC

JOB NO.:

0222-012-100

F:\CA\Benchmark\295 Maryland\2014 IRM\Figure 4 Exploration Location Plan.dwg

DATE: DECEMBER 2014
DRAFTED BY: REL



EXPLORATION LOCATION PLAN

AAR/RAWP
295 MARYLAND STREET SITE
BUFFALO, NEW YORK

PREPARED FOR
295 MARYLAND LLC

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

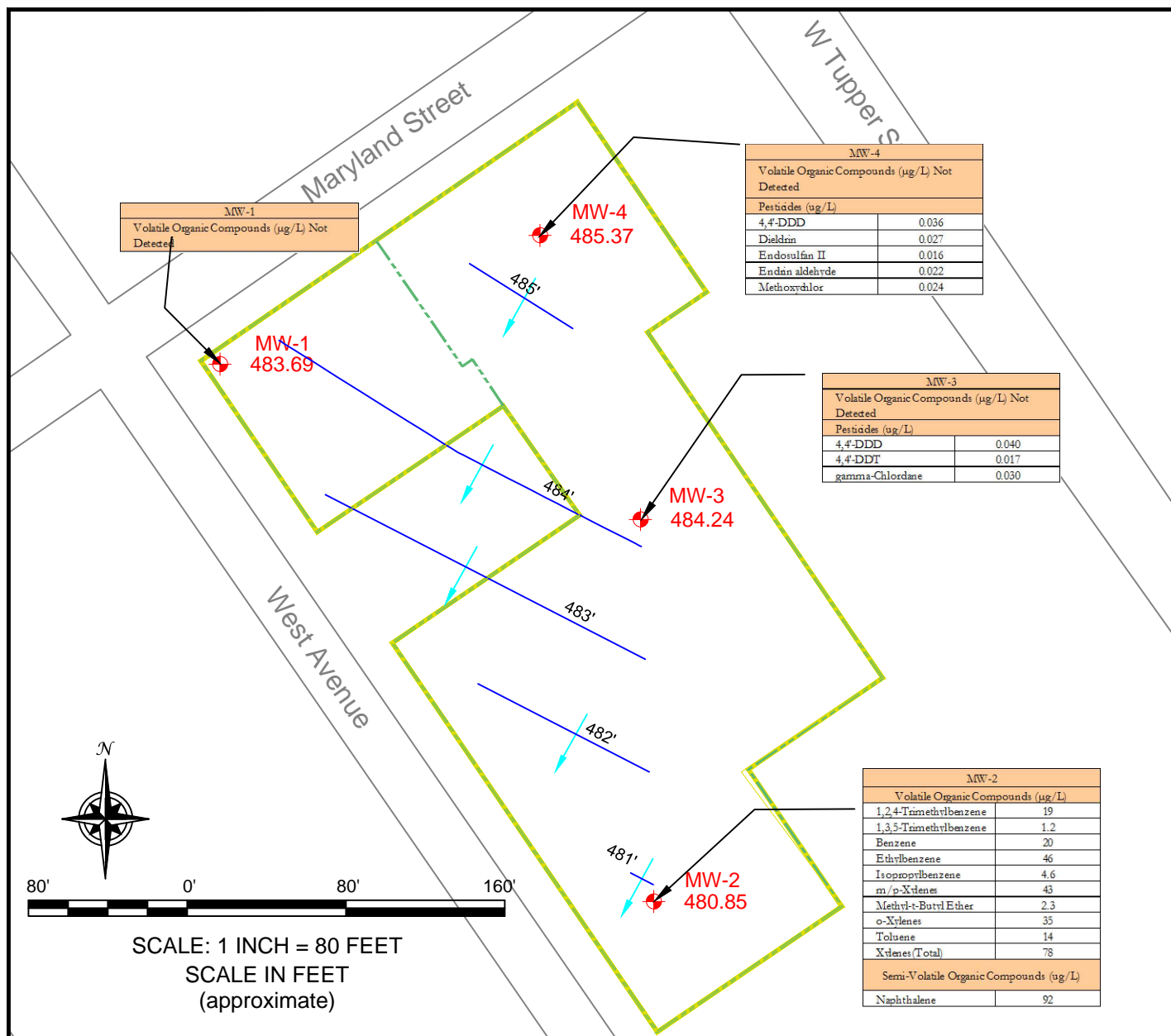
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0222-012-100

FIGURE 4

DISCLAIMER: PROPERTY OF BENCHMARK EES, PLLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK EES, PLLC.

FIGURE 5



LEGEND

- PARCEL BOUNDARY
- SITE BOUNDARY
- + MW-3 484.24
MONITORING WELL (GROUNDWATER ELEVATION FROM 9/23/10)
- 482' GROUNDWATER CONTOUR
- > GROUNDWATER FLOW DIRECTION

MW-2	
Volatile Organic Compounds (ug/L)	
1,2,4-Trimethylbenzene	19
1,3,5-Trimethylbenzene	1.2
Benzene	20
Ethylbenzene	46
Isopropylbenzene	4.6
m/p-Xylenes	43
Methyl-t-Butyl Ether	2.3
o-Xylenes	35
Toluene	14
Xylenes (Total)	78
Semi-Volatile Organic Compounds (ug/L)	
Naphthalene	92

GROUNDWATER TEST RESULTS FROM
MARCH 1, 2011 SAMPLING EVENT



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

GROUNDWATER CONTOUR AND CONCENTRATION MAP

AAR/RAWP

295 MARYLAND STREET SITE
BUFFALO, NEW YORK

PREPARED FOR
295 MARYLAND, LLC

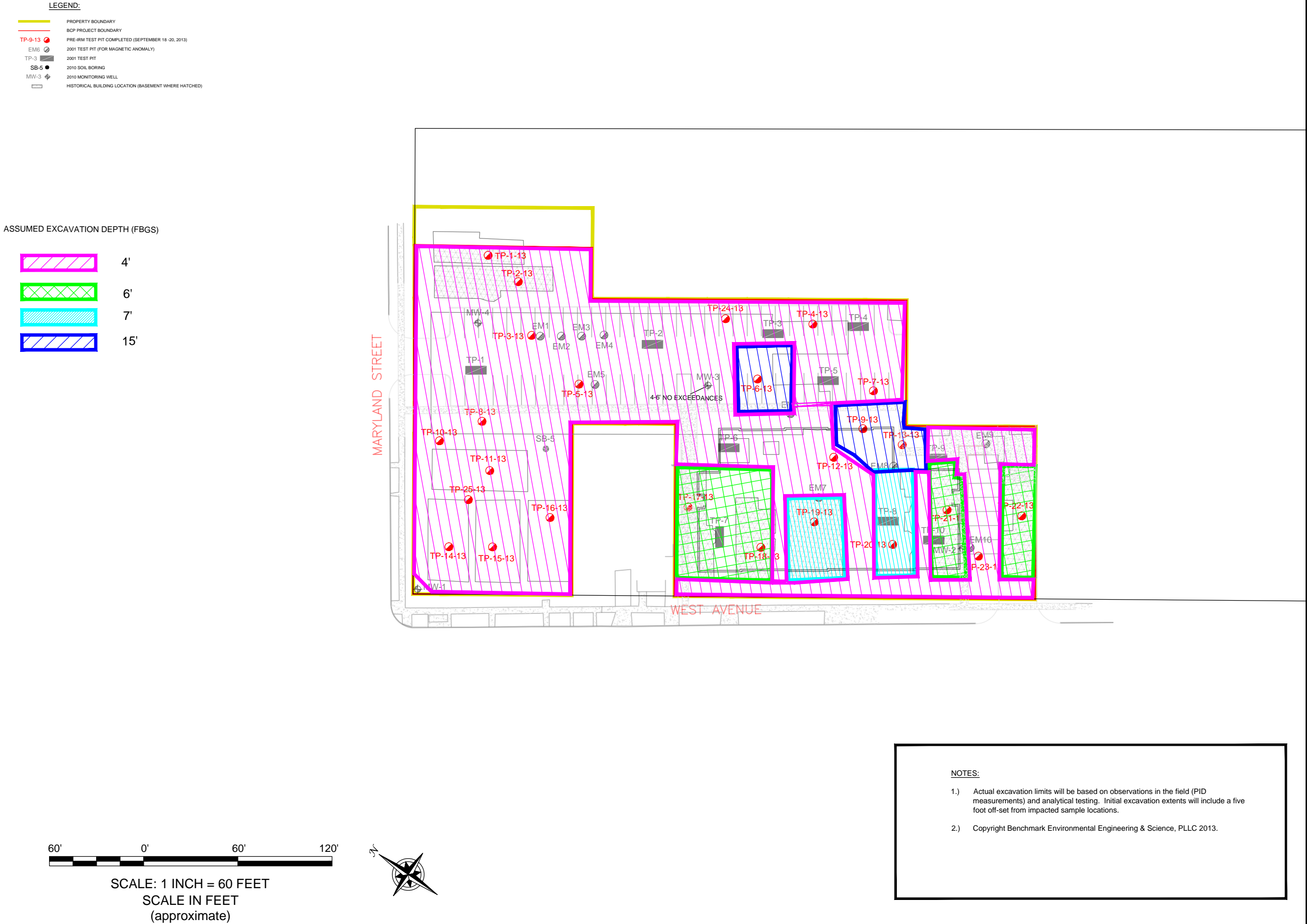
PROJECT NO.: 0222-001-100

DATE: APRIL 2015

DRAFTED BY: RFL

F:\CAD\Benchmark\295 Maryland\2014 IRM\Figure 6; TRACK Alt 1 Excavation Extent.dwg

DATE: DECEMBER 2014
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CONCEPTUAL EXCAVATION EXTENTS
TRACK 1 ALTERNATE 1

AAR/RAWP
295 MARYLAND STREET SITE
BUFFALO, NEW YORK

PREPARED FOR
295 MARYLAND LLC

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC
2556 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
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JOB NO.: 0222-012-001

FIGURE 6

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FIGURE 8

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

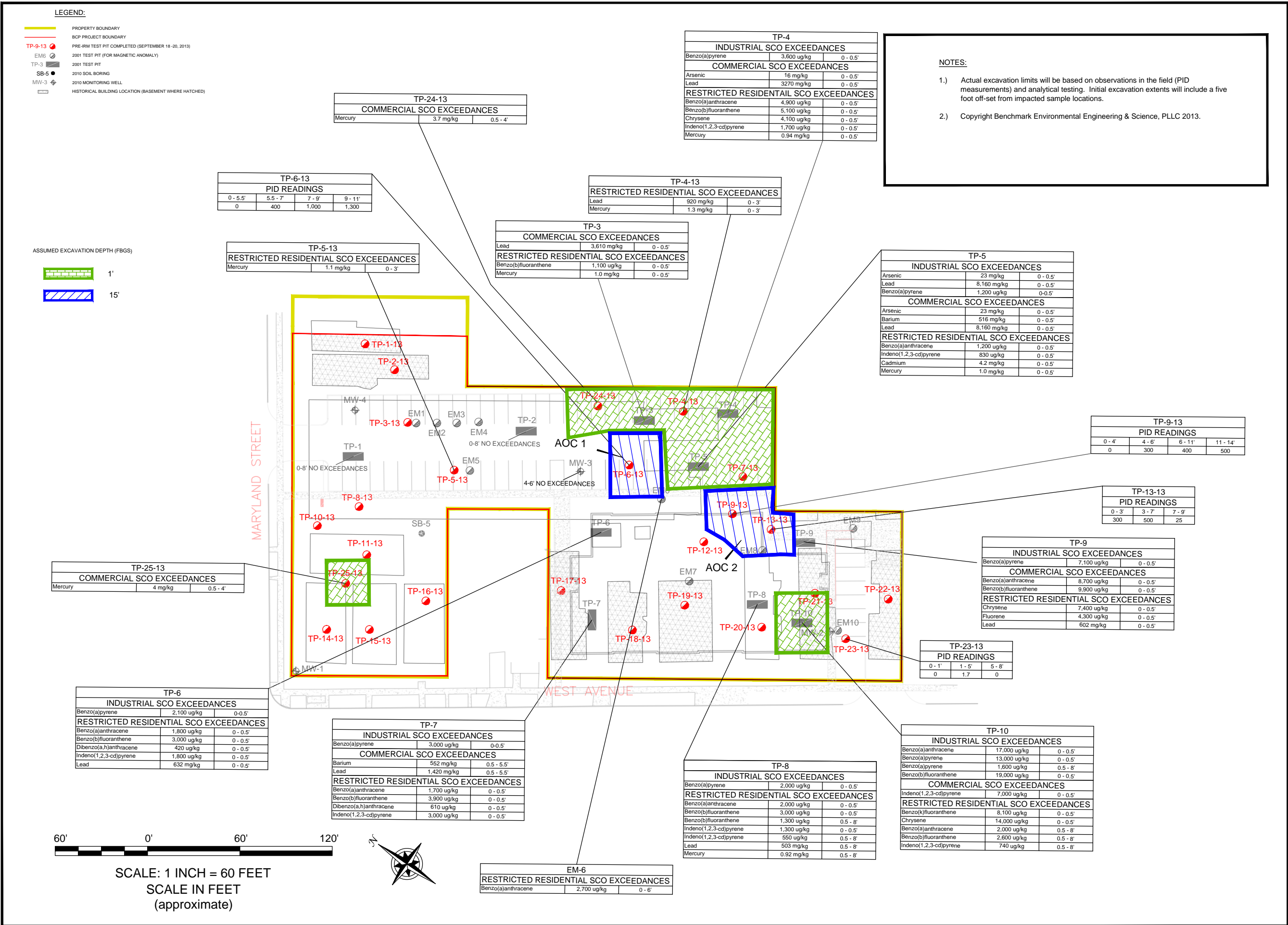
PREPARED FOR
295 MARYLAND LLC

JOB NO.: 0222-012-001

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F:\CAD\Benchmark\295 Maryland\2014 IRM\Figure 9 - Track 4 Alt 3A Excavation Extent.dwg

DATE: DECEMBER 2014
DRAFTED BY: RFL



CONCEPTUAL EXCAVATION EXTENTS
TRACK 4 ALTERNATE 3A

AAR/RAW/P
295 MARYLAND STREET SITE
BUFFALO, NEW YORK

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC
2556 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0222-012-001

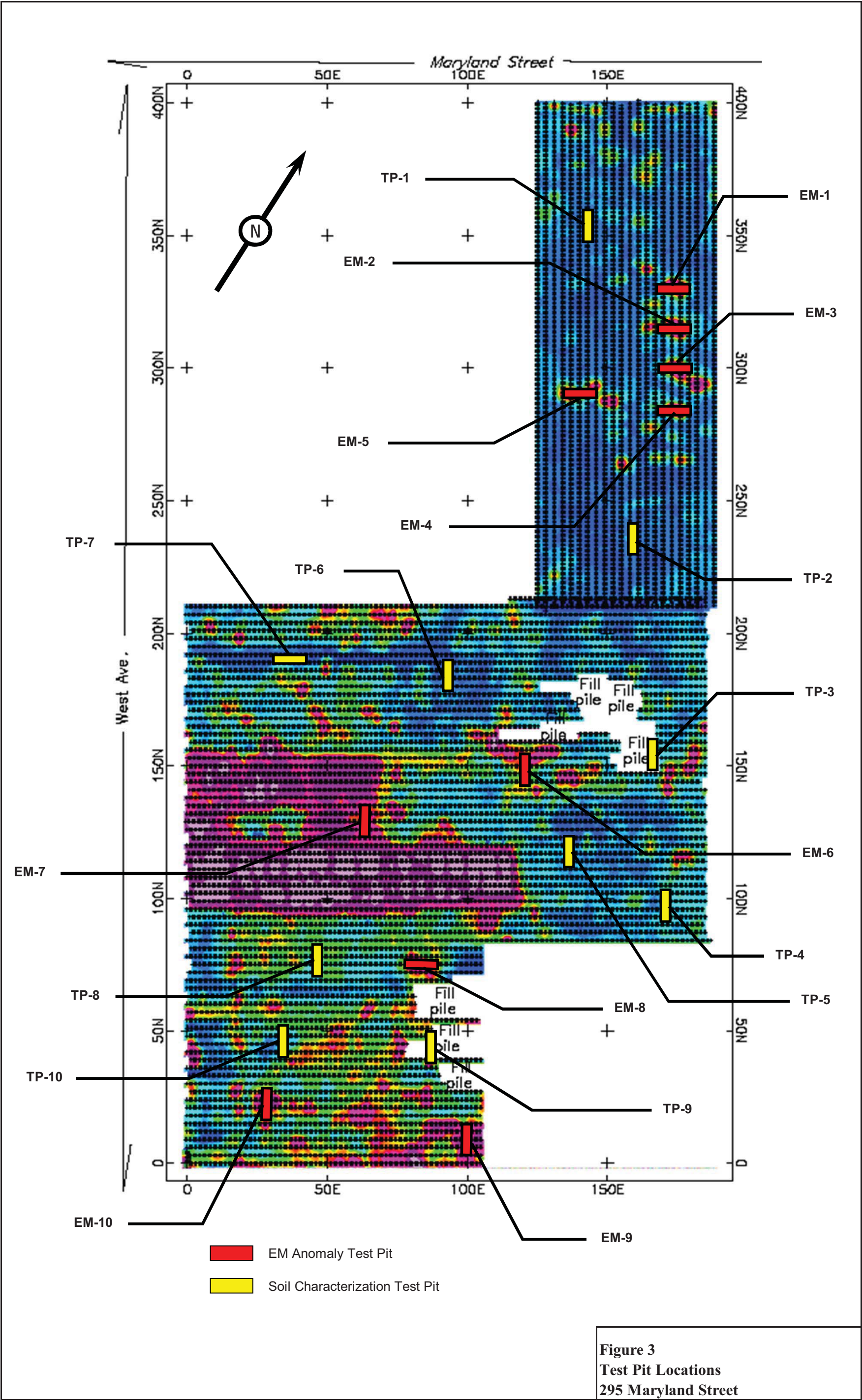
PREPARED FOR
295 MARYLAND LLC

FIGURE 9

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APPENDIX A

GEOPHYSICAL SURVEY RESULTS



APPENDIX B

TEST PITS LOGS

ELECTROMAGNETIC ANOMALY TEST PIT LOGS

(EM-1 to EM-10)

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St

DATE 10-22-01

JOB NO. 0009-005-100

WEATHER: Sun

CONTRACTOR Zoladz

Temp: 55°F

SUBJECT EM Test Pit Investigation

Wind: 5-10 mph

Precip: N/A

EM-1 ^E 185 ^N 340 N

Brown/Gray soil, clay some brick, to concrete

Located approx 2' x 2' x 3' D concrete footer @ 1' BGS

No PED measurement > background (0.0 ppm)

No odors, No visual contam

Signature: Paul Finkel

Title: Project Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St
JOB NO. 0009-005-100
CONTRACTOR Zoladz
SUBJECT Em Test pits

DATE 10-22-01
WEATHER: Sun
Temp: 58°F
Wind: 5-10 MPH
Precip: N/A

TP EM-2:

Same as EM-1 - conc. footer approx 28" diameter, 3' D
1' BGS - 8" x 8" steel plate on top of footer

Approx 1' Fill w/ stone, brick over native br. clay

No odor, no visual contam, 0.0 ppm on PED

Signature: James Farber

Title: Project Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland

DATE 10-22-01

JOB NO. 009-05-100

WEATHER: Sun

CONTRACTOR Zoladz

Temp: 58°F

SUBJECT EM Test Pits

Wind: 5-10 mph

Precip: N/A

Test Pit EM-3

6" Fill w/ stone, brick gray-brown over mostly native br
clay. Some fill lenses @ 2-3' bgs

Located approx 30" Diameter x 3' D concrete footer 6" BG-S

No odor, No PED, No visual content

Signature: [Signature]

Title: Project Mgr

FIELD INVESTIGATION REPORT

PROJECT Maryland St.
JOB NO. 0009-005-100
CONTRACTOR Zoladz
SUBJECT EM Test Pits

DATE 10-22-01
WEATHER: Sun
Temp: 58°F
Wind: 5-10 mph
Precip: N/A

Test Pit EM-4:

Clay w Fill lense @ 2' BGS 0-6" Fill w brick, stone
small amt perched water @ 2.5'

Concrete footer 30" D x 3' D present 6" BGS

No odors, No visual indication of contamination, 0.0 ppm on PEA

Signature: [Signature]

Title: Project Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St

DATE 10-22-01

JOB NO. 2009-005-100

WEATHER: Sun

CONTRACTOR Zoladz

Temp: 58°F

SUBJECT EM Test Pits

Wind: 5-10 MPH

Precip: N/A

TP EM-5:

Excavated 3' x 8' test pit to 2' BGS

Fill soil - Br / Dr Brown w/ brick, stone

Located concrete-encased I beam (possible former footer)
@ 1' BGS

No odors, No visual carbon evident, 0.0 ppm on PID

Signature: _____

Title: _____

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St
JOB NO. 0009-005700
CONTRACTOR Zola22
SUBJECT Em Test Pits

DATE 10-22-01
WEATHER: Sun
Temp: 60°F
Wind: 5-10 mph
Precip: N/A

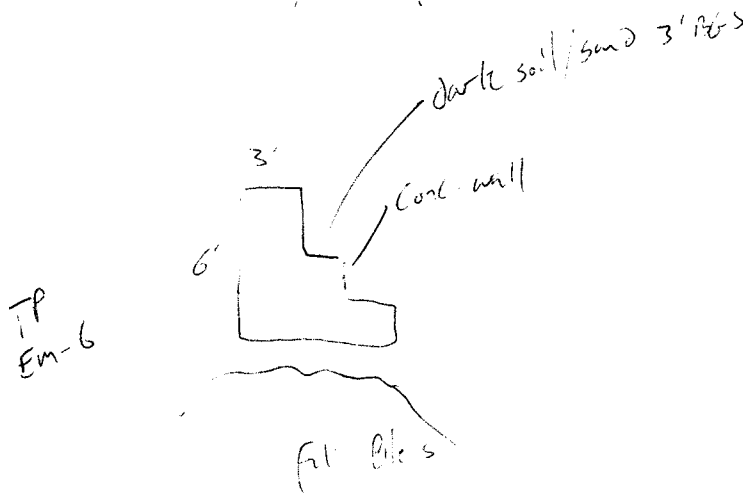
Brick, concrete & stone fill @ surface; encountered small stub (2' L) of 4" CI pipe which may have been the source of the EM

Anomaly in 2007 re concrete fragments

Encountered blackish stained sand @ approx 3' BGS w/ slight-moderate kerosene-like odor. rr. sheen on perched water @ 3' as well

0.0 ppm on PID. Appears to be localized. Chased to south,

ran into softer soil/clay w no odor. Collected sample for VOCs, SVOCs, PCBs, TAL metals. Also retained aliquot for pH/TOC composite



Signature: Thms Fahn

Title: Project Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland ST
JOB NO. 0009-005-100
CONTRACTOR Zolad z
SUBJECT EM Test pits

DATE 10-22-01
WEATHER: Sun
Temp: 55°F
Wind: 5-10 mph
Precip: N/A

Test Pit EM-7

Approx 1' of soil fill w/ large amounts of brick over
competent concrete pad

No visual/olfactory evidence of contamination
0.0 ppm on PED

Signature: James Foster

Title: Project Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland ST

DATE 10-22-01

JOB NO. 0009-005-100

WEATHER: SUN

CONTRACTOR Zoladz

Temp: 50°F

SUBJECT Em Test Pits

Wind: 5-10 MPH

Precip: N/A

Test Pit EM-8

2-3" of gravel over concrete pad, also uncovered 2 small steel bars
(6" x 2" x 2') No doors, No visual contain, @.0 ppm on pad

Signature: James Farber

Title: Project Manager

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland ST

DATE 10-22-01

JOB NO. 0009-005-100

WEATHER: Sun

CONTRACTOR Zolad Z

Temp: 50°F

SUBJECT Em Test Pits

Wind: 5-10 mph

Precip: N/A

Test Pit EM-89 MP

Uncovered 5' length of steel C channel, 1' piece angle iron
0-6" BGS, excavated 3' x 6' x 4' D test pit. 1' fill, mixed w/
topsoil, over native br. clay. water pooled @ 3' BGS

No visual contain, no odors, O.A. AED

Also excavated shallow soil east of TP EM-~~8~~⁹ to verify anomaly
Uncovered addl steel banding and channel

Signature: James Fikes

Title: Proj. Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St

DATE 10-22-01

JOB NO. 0009-005-100

WEATHER: Sun

CONTRACTOR Zoladz

Temp: 48°F

SUBJECT EM Test Pits

Wind: 5-10 MPH

Precip: N/A

Test Pit EM-10:

Located several sections of steel angle @ 0-1' BGS
Soils consist of 1' topsoil intermingled w/ fill over native br. clay
Test Pit 3' W x 6' L completed to 3' BGS

No visual / olfactory evidence of contamination, 00 ppm on PCD

Signature: John F. Folsom

Title: 10-22-01 Proj Mgr

2001 TEST PIT LOGS

(TP-1 to TP-10)

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St

DATE 10/23/01

JOB NO. 0009-005-100

WEATHER: overcast

CONTRACTOR Zolad Z

Temp: 55°F

SUBJECT Investigation Test Pits

Wind: 15 MPH

Precip: N/A

Investigation Test Pit 1 (TP-1):

Excavated to a depth of 8' BGS, 3 W x 6' L
8" fill over clay/topsoil mix - appears to have been
original native layer 3' bgs - based on presence of
darker topsoil layer at 14' depth.
Native brown soil below (clay ^{silty})

No odors, visual indications of contam. - 0.0 ppm on PED
samples collected surface (0-6") and subsurface
(6"-8") @ 8' 15" am

Signature: Paul Forles

Title: Proj. Mgr.

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland Street

DATE 10-23-01

JOB NO. 0009-005-100

WEATHER: Overcast

CONTRACTOR Zoladz

Temp: 55°F

SUBJECT Investigation Test Pits

Wind: 20 mph

Precip: N/A

Investigation Test Pit 2 (TP-2)

3' W x 10' L x 8' D

Greyish ash/cinders 0-8" over brown clay 8"-2'

Sand layer w/ some perched water at 2'

Native brown clay 2'-8'

No odors or visual contamination evident

0.0 ppm on PED

collected samples @ 840 am collected MS/MSD from
(0-6") (6'-8') 6"-8' interval

Signature: [Signature]

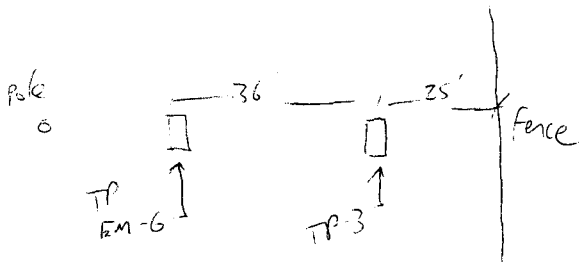
Title: [Signature]

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St
JOB NO. 0009-005-100
CONTRACTOR Zoladz
SUBJECT Investigation test pits

DATE 10-23-01
WEATHER: Overcast
Temp: 55°F
Wind: 20 mph
Precip: N/A

Investigation test Pit TP-3



Excavated test pit 3' w x 9' L x 8' D

Fill ~~at~~^{THF} 0-1' dark brown w some rock & brick

Fill extends to approx 2' bgs @ southern end of pit

Perched water @ 2' on southern end

Native br clay 2' - 8'

No odors or indications of contamination. 0.2 ppm on PED

Signature: John Fuler

Title: Project Manager

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland ST

DATE 10/23/01

JOB NO. 0009-005-100

WEATHER: clouds/sun

CONTRACTOR Zoladz

Temp: 58°F

SUBJECT Test Pit Investigation

Wind: 20 mph

Precip: N/A

Investigation Test Pit 4 (TP-4):

Excavated TP-4 @ 3' x 10' x approx 9' D

1' fill w/ brick, stone, clay over approx 2' clay

0" topsoil / darker soil lens @ 3' bgs

brown native clay 3'-8' bgs

no water

No visual or olfactory evidence of contamination

0-0 ppm on PED

collected samples @ 940 am from 0-6" & 6"-8" intervals

Signature: John Fales

Title: Proj Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St

DATE 10-23-01

JOB NO. 0009-05-100

WEATHER: Overcast

CONTRACTOR Zoladz

Temp: 60°F

SUBJECT Test Pit Investigation

Wind: 20 mph

Precip: N/A

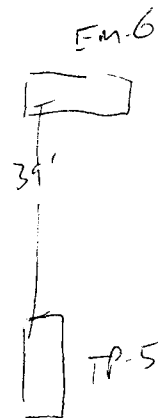
Test Pit 5 (TP-5)

Excavated 3'W x 10'L x 9'D

Similar to TP-4: 1' fill w/ some stone
& brick over 2' clay, sandy topsoil
lens @ 3' BGS, native br. clay below

No odors or visual contamination evident
00 ppm on PED

Collected samples from 0.6" & 6"-9"
@ 10⁰⁰ am



Signature: Tom Ferts

Title: Project mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St

DATE 10-23-01

JOB NO. 0009-005-100

WEATHER: clouds/sun

CONTRACTOR Zoladz

Temp: 60°F

SUBJECT Investigation Test Pits

Wind: 20 mph

Precip: N/A

Investigation Test Pit 6 (TP-6)

Excavated TP-6 3'W x 10'L x 8'D

Fill soils w/ some misc debris, plastic & brick to approx 2' bgs

(3.5 bgs & on s. side) & fractured clay pipe (8" diameter) noted extending on east & west sides of pit near so. side

No odors, no visible contain indicated. oxygen in P.D

Samples of 0-6" & 6"-9' intervals collected @ 10:30 a.m.

Signature: [Signature]

Title: Proj. Mgr.

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St
JOB NO. 0009-005-100
CONTRACTOR Zoladz
SUBJECT Test Pit Investigation

DATE 10/23/01
WEATHER: clouds/sun
Temp: 60°F
Wind: 20 mph
Precip: N/A

Test Pit TP-17

Excavated 3'W x 10'L x 5.5'D

Encountered refusal (old concrete floor) @ 5.5'D

Appears to have been a former wooden structure demolished in-place. Fill materials consist of wood, stone, concrete, shingles plastic & cloth. No visual contamination, odors appear to be related to rotting wood & shingles (slight asphalt odor)

Samples collected at 11" am 0-6" & 6"-5.5' BGS

Signature: John Foster

Title: Proj Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland St

DATE 10-23-01

JOB NO. 0009-005-100

WEATHER: Sun / clouds

CONTRACTOR Zoladz

Temp: 65°F

SUBJECT Test Pit Investigation

Wind: 20 MPH

Precip: N/A

Test Pit TP-8

Excavated approx 3'W x 10' L x 8' D

Significant amounts of fill mths encountered to 6' BGS

Fill comprised of soil, brick, rock w/ some metal debris

Buried 1" elect. conduit running E/W encountered approx 2.5' BGS

Native clay soil @ 6-8' BGS

Some perched water on S side of pit @ 6' BGS

Samples collected @ 1140 am

Signature: Jim Fahn

Title: Proj. Mgr

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland ST
JOB NO. 0009-005-100
CONTRACTOR Zoladz
SUBJECT Test Pit Investigation

DATE 10/23/01
WEATHER: Sun/Clouds
Temp: 60°F
Wind: 20 mph
Precip: N/A

Test Pit TP-9:

Excavated 3'W x 10'L x 9'D test pit

2' soil fill w/ some brick, wood, stone & metal

Encountered former cinder block foundation on east side of test pit
clay on W side begins @ 2' BGS

No perched water

No odors or visual indications of contamination

0.0 ppm on PCLD

collected sample from 0-6" & 6"-8" @ 12⁰⁰ pm

Signature: Thom Forbes

Title: Project Manager

FIELD INVESTIGATION REPORT

PROJECT 295 Maryland Street

DATE 10-23-01

JOB NO. 0009-005-100

WEATHER: Clouds/sun

CONTRACTOR Zoladz

Temp: 60°F

SUBJECT Test Pit Investigation

Wind: 20-25 MPH

Precip: N/A

Test Pit TP-10:

Excavated 3' W x 8' L x 8' D

Fill w/ some brick, stone & rock 0-3.5' BGS

OLD stone Floor @ 3.5' BGS - Excavator broke thru, continued
to 8' BGS

Native brown/red clay 4'-8' BGS

No odors or visual / olfactory evidence of contamination

D.O. ppm or PED

Collected samples of 0-6" & 6"-8' @ 12:30 pm

Signature: Thom Forker

Title: Project Manager

APPENDIX C

FIELD BOREHOLE LOGS/WELL INSTALLATION DETAILS

Borehole Number: MW-1

Project: Phase II Investigation

A.K.A.:

Client: 295 Maryland LLC.

Logged By: TAB

Site Location: 295 Maryland, Buffalo, NY

Checked By: BCH



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

[illegible]

Drilled By: Earth Dimensions, Inc.
Drill Rig Type: CME 550
Drill Method: 4.25-inch Continuous SS w/HSA
Comments:
Drill Date(s): 9 13 10

Hole Size: 8 1/2 - inch
Stick-up: Flush Mount
Datum: NA

Sheet: 1 of 1

Project No: 0222-001-100

Borehole Number: MW-2

Project: Phase II Investigation

A.K.A.:

Client: 295 Maryland LLC.

Logged By: TAB

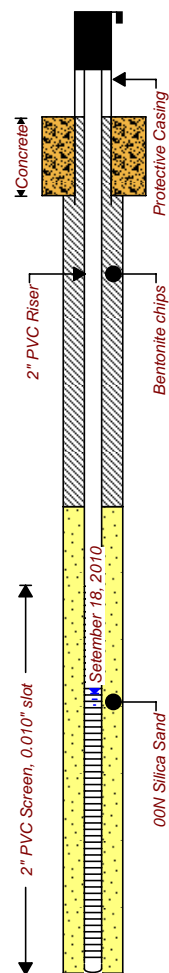
Site Location: 295 Maryland, Buffalo, NY

Checked By: BCH



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol			
-3.0									
	0.0	Ground Surface							
	0.0	Lean Clay w/Fill Reddish brown with black, moist, non to low plastic fines, few fine sand, trace fine gravel, very stiff, with concrete and cinders, wood fragments, medium toughness.	S1	16	2.0		0.0		
2.0	-2.0		S2	12	1.4		0.0		
	-4.0	As above no black, no wood fragments, cinders or concrete, moist, orange brick fragments, rootlets, trace coarse sand and fine gravel.	S3	29	2.0		0.0		
	4.0		S4	37	2.0		0.0		
7.0	-6.0	Lean Clay Reddish Brown, moist, low plasticity fines, very stiff, medium toughness.					0.0		
	6.0	As above, trace coarse sand.					0.0		
	-10.0		S5	20	2.0				
12.0	10.0	As above, mostly medium plastic fines, trace fine sand, trace fine gravel, orange fine sand areas, medium toughness							
	-15.0		S6	37	1.4		0.0		
17.0	15.0	Silt with Sand Brown, wet, mostly non plastic fines with some fine sand, dense, rapid dilatancy.							
	-20.0		S7	24	1.3		1.6		
22.0	20.0	As above, slight odor..							
	-22.0								
22.0	22.0	End of Borehole							
27.0									



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: CME 550
Drill Method: 4 1/4-inch HSA w/Continuous SS
Comments:
Drill Date(s): 9 13 10

Hole Size: 8 1/2-inch
Stick-up: 2.5-foot
Datum: NA

Sheet: 1 of 1

Project No: 0222-001-100

Borehole Number: MW-3

Project: Phase II Investigation

A.K.A.:

Client: 295 Maryland LLC.

Logged By: TAB

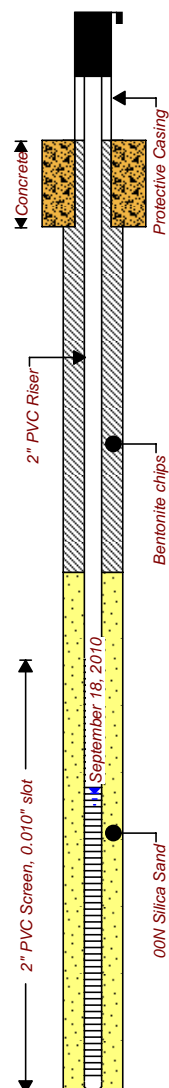
Site Location: 295 Maryland, Buffalo NY

Checked By: BCH



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol			
-3.0							0 ppm 12.5 25		
	0.0	Ground Surface							
	0.0	Top Soil Brown, moist, mostly low plastic fines, trace subrounded coarse sand, trace fine gravel medium dense rootlets.	S1	28	1.5		0.0		
2.0	-2.0 2.0	Lean Clay w/ Fill Reddish brown, moist, dense mostly low plasticity fines, trace fine sand, trace fine to coarse gravel, orange brick.	S2	15	1.5		0.0		
	-4.0 4.0	As above, ash layer .5-inch thick at (3.0) fbgs.	S3	17	1.4		0.0		
		Lean Clay Reddish brown, moist, low to medium plastic fines, trace fine sand, stiff, rootlets, high toughness.	S4	36	1.9		0.0		
7.0	-8.0 8.0	As above, trace coarse sand.	S5	34	2.0		0.0		
		As above, grey fine sand filled fractures.	S6	37	2.0		0.0		
	-10.0 10.0	As above, trace, fine and coarse gravel.	S7	22	2.0		0.0		
12.0	-12.0 12.0	As above, iron stained fine sand lenses.	S8	14	1.8		0.0		
	-14.0 14.0	As above.	S9	18	1.5		0.0		
	-15.0 15.0	Sandy Silt Brown, wet, mostly, non-plastic fines, with some fine sand, medium dense.	S10	46	1.4		0.0		
17.0	-18.0 18.0	As above	S11	29	1.3		0.0		
	-20.0 20.0	As above.							
22.0	-22.0 22.0	End of Borehole							



Drilled By: Earth Dimensions, Inc
Drill Rig Type: CME 550
Drill Method: 4 1/4-inch HSA w/Continuous SS
Comments:
Drill Date(s): 9 14 10

Hole Size: 8 1/2-inch
Stick-up: 2.5-fbgs
Datum: NA

Sheet: 1 of 1

Project No: 0222-001-100

Borehole Number: MW-4

Project: Phase II Investigation

A.K.A.:

Client: 295 Maryland LLC.

Logged By: TAB

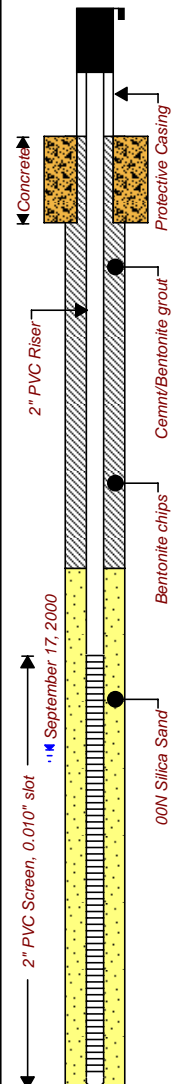
Site Location: 295 Maryland, Buffalo, NY

Checked By: BCH



TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 0 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol			
-3.0									
	0.0 0.0	Ground Surface							
2.0		Lean Clay W/Fill Brown, moist, mostly non to low plasticity fines with some fine sand, few coarse sand and fine gravel asphalt and brick.	S1	18	1.3				
	-5.0 5.0	Lean Clay Reddish brown, moist, mostly medium plastic fines with trace fine sand, very stiff, trace coarse sand, grey fine sand partings, medium toughness.	S2	23	2.0				
7.0									
	-10.0 10.0	As above, with brown fine sand lenses 0.05 to 0.1-inch thick.	S3	36	2.0				
12.0									
	-15.0 15.0	As above, no brown fine sand lenses.	S4	12	2.0				
17.0									
	-20.0 20.0	Sandy Silt Brown, wet, mostly non plastic fines with some fine sand, very dense, trace fine gravel.	S5	61	1.6				
22.0	-22.0 22.0	End of Borehole							



Drilled By: Earth Dimensions, Inc.
Drill Rig Type: CME 550
Drill Method: 41/4-inch HSA w/Continuous SS
Comments:
Drill Date(s): 9 14 10

Hole Size: 8 1/2-inch
Stick-up: 2.5-feet
Datum: NA

Sheet: 1 of 1

Project No: 0222-001-100

Borehole Number: SB-5

Project: Phase II investigation

A.K.A.:

Client: 295 Maryland LLC.

Logged By: TAB

Site Location: 295 Maryland, Buffalo, NY

Checked By: BCH



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol			
0.0	0.0 0.0	Ground Surface							
		Lean Clay w/Fill Reddish brown, moist, low to non plastic fines, trace fine sand, very stiff, asphalt and glass pieces, cinders.	S1	20	2.0		0.0		
	-2.0 2.0	As above.	S2	20	1.4		0.0		
	-4.0 4.0	Lean Clay Reddish brown, moist, low plasticity fines, trace fine sand, very stiff, medium toughness.	S3	27	2.0		0.0	See analytical tables	
5.0									
	-6.0 6.0	End of Borehole							

Drilled By: Earth Dimensions, Inc.
Drill Rig Type: CME 550
Drill Method: 4 1/4-inch HSA w/ Continuous SS
Comments:
Drill Date(s): 9 13 10

Hole Size: 8 1/2-inch
Stick-up: NA
Datum: Mean Sea Level

Sheet: 1 of 1

APPENDIX D

GROUNDWATER SAMPLING LOGS

GROUNDWATER FIELD FORM

Project Name: 295 Maryland St
Location: 295 Maryland

Date: 3/1/11
Field Team: RLO

Project No.:

Well No. <u>mw-1</u>			Diameter (inches): <u>2</u>			Sample Date / Time: <u>3/1/11</u>			
Product Depth (ftTOR):			Water Column (ft):			DTW when sampled: <u>11.40</u>			
DTW (static) (ftTOR): <u>5.85</u>			One Well Volume (gal):			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input checked="" type="checkbox"/> Purge & Sample			
Total Depth (ftTOR): <u>21.52</u>			Total Volume Purged (gal):			Purge Method: <u>Low Flow</u>			
Time	Water Level (ftTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
0	Initial								
1	7.35	.25	8.02	11.1	1158	54	1.81	+77	clear
2	8.00	.50	7.74	9.9	1160	58	1.69	+91	" "
3	8.40	.75	7.81	9.3	1166	61	2.27	+101	" "
4	10.1	1.0	7.69	9.5	1160	62	1.78	+105	" "
5									
6									
7									
8									
9									
10									
Sample Information:									
1030	S1	71.40	7.55	9.3	1071	63	2.08	+103	clear
	S2								

Well No. <u>mw-2</u>			Diameter (inches): <u>2"</u>			Sample Date / Time: <u>3/1/11</u>			
Product Depth (ftTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (ftTOR): <u>13.30</u>			One Well Volume (gal):			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input checked="" type="checkbox"/> Purge & Sample			
Total Depth (ftTOR): <u>24.77</u>			Total Volume Purged (gal):			Purge Method: <u>Low Flow</u>			
Time	Water Level (ftTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
0	Initial								
1202	14.3	.15	7.37	9.5	1882	>100	3.48	+96	turbid
2	15.6	.50	7.27	10.3	1851	85	3.91	+92	turbid / odor
3	16.4	.75	7.02	10.7	1846	87	3.03	+69	turbid / odor
4	16.4	1	7.01	10.7	1844	66	2.89	+56	cloudy / odor
5									
6									
7									
8									
9									
10									
Sample Information:									
1220	S1	19.65	7.07	11.3	1870	53	2.49	-1	svoc type odor
	S2								

REMARKS: ms/msd FOR PAHS collected at mw-2

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

Note: All water level measurements are in feet, distance from top of riser.

PREPARED BY:

RLO

GROUNDWATER FIELD FORM

Project Name: 295 Mary Way

Date: 3/1/11

Location: 295 Mary Way

Project No.:

Field Team: RLO

Well No. <u>mw-3</u>			Diameter (inches): <u>2</u>			Sample Date / Time: <u>3/1/11</u>			
Product Depth (ftTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (ftTOR): <u>12.35</u>			One Well Volume (gal):			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input checked="" type="checkbox"/> Purge & Sample			
Total Depth (ftTOR): <u>24.87</u>			Total Volume Purged (gal):			Purge Method: <u>Low Flow</u>			
Time	Water Level (ftTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
1137	1 13.2	.25	7.27	9.1	2843	>100	4.14	+196	turbid
	2 14.8	.75	6.97	10.2	2846	90	4.65	+209	" "
	3 15.8	1	6.93	10.1	2831	95	4.17	+219	" "
	4 16.4	1.25	6.96	9.8	2834	99	3.98	+220	" "
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1149	S1 19.9		6.97	10.1	2832	88	2.93	+172	Turbid
	S2								

Well No. <u>mw-4</u>			Diameter (inches): <u>2</u>			Sample Date / Time: <u>3/1/11</u>			
Product Depth (ftTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (ftTOR): <u>10.19</u>			One Well Volume (gal):			Purpose: <input type="checkbox"/> Development <input type="checkbox"/> Sample <input checked="" type="checkbox"/> Purge & Sample			
Total Depth (ftTOR): <u>24.72</u>			Total Volume Purged (gal):			Purge Method: <u>Low Flow</u>			
Time	Water Level (ftTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1 11.8	.50	7.21	8.4	1850	78	4.85	+114	Cloudy
	2 13.2	.75	7.17	9.0	1836	>100	4.88	+115	Turbid
	3 15.3	1	7.18	8.4	1852	>100	4.89	+126	" "
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1118	S1 21.45	5	7.16	10	1781	>100	1.72	+121	turbid
	S2								

REMARKS: Blind duplicate taken at mw-3 for VOCs & Pesticides

medium collected at mw-4 VOCs & Pesticides

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

APPENDIX E

LABORATORY ANALYTICAL DATA

Analytical Report

SDG Number: RTI0959

Project Description(s)

Work Order RTI0959 - Benchmark - 295 Maryland St. site

Work Order RTI1016 - Benchmark - 295 Maryland St. site

For:

Tom Forbes

Benchmark Environmental & Engineering Science

2558 Hamburg Turnpike, Suite 300

Lackawanna, NY 14218



Brian Fischer

Project Manager

Brian.Fischer@testamericainc.com

Thursday, September 30, 2010

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

TestAmerica Buffalo Current Certifications

As of 08/16/2010

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA	10026
North Dakota	CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Oregon*	CWA, RCRA	NY200003
Pennsylvania*	NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Brian Fischer
Project Manager

Thursday, September 30, 2010

There are pertinent documents appended to this report, 2 pages, are included and are an integral part of this report. Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10
Reported: 09/30/10 11:33

The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to the lab MDL. It must be noted that results reported below lab standard quantitation limits (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

<u>SpecificMethod</u>	<u>Analyte</u>	<u>Units</u>	<u>Client RL</u>	<u>Lab PQL</u>
8270C	4-Methylphenol	ug/kg dry	170	330

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
B1	Analyte was detected in the associated method / calibration blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected above the laboratory PQL, data not impacted.
C8	Calibration Verification recovery was above the method control limit for this analyte. A high bias may be indicated.
D02	Dilution required due to sample matrix effects
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
QFL	Florisil clean-up (EPA 3620) performed on extract.
QSU	Sulfur (EPA 3660) clean-up performed on extract.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Client ID: MW-3 (4-6) (RTI1016-01 - Solid)

Sampled: 09/14/10 10:40

Recvd: 09/15/10 14:45

Volatile Organic Compounds by EPA 8260B

Methylene Chloride	7.9		5.4	2.5	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
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Total Metals by SW 846 Series Methods

Aluminum	11600		10.2	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Arsenic	4.5		2.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Barium	136		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Beryllium	0.562		0.204	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Calcium	55100		51.1	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Chromium	14.3		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Cobalt	13.0		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Copper	19.4		1.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Iron	18000		10.2	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Lead	14.7		1.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Magnesium	20600		20.4	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Manganese	648	B1, B	0.2	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Nickel	22.0		5.11	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Potassium	1820		30.7	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Sodium	260		143	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Vanadium	21.6		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Zinc	68.6		2.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Mercury	0.0218		0.0213	NR	mg/kg dry	1.00	09/20/10 15:32	JRK	10I1343	7471A

General Chemistry Parameters

Percent Solids	90		0.010	NR	%	1.00	09/16/10 16:43	JRR	10I1002	Dry Weight
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Client ID: SB-5 (0-2) (RTI0959-01 - Solid)

Sampled: 09/13/10 10:50

Recvd: 09/14/10 12:10

Volatile Organic Compounds by EPA 8260B

Methylene Chloride	3.5	J	6.3	2.9	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
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Semivolatile Organics by GC/MS

Anthracene	20	J	210	5.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(a)anthracene	73	J	210	3.6	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(a)pyrene	59	J	210	5.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(b)fluoranthene	84	J	210	4.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(ghi)perylene	47	J	210	2.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(k)fluoranthene	31	J	210	2.3	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Bis(2-ethylhexyl) phthalate	120	J	210	68	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Chrysene	77	J	210	2.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Fluoranthene	150	J	210	3.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Indeno(1,2,3-cd)pyrene	43	J	210	5.8	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Phenanthrene	100	J	210	4.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Pyrene	120	J	210	1.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDE [2C]	4.1		2.1	0.31	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
4,4'-DDT [2C]	4.0		2.1	0.21	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A

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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: SB-5 (0-2) (RTI0959-01 - Solid) - cont.						Sampled: 09/13/10 10:50		Recvd: 09/14/10 12:10		
<u>Total Metals by SW 846 Series Methods</u>										
Aluminum	13800	B1, B	12.3	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Arsenic	6.4		2.5	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Barium	133		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Beryllium	0.649		0.245	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Cadmium	0.621		0.245	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Calcium	13200		61.3	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Chromium	19.2		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Cobalt	11.8		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Copper	22.7		1.2	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Iron	23600		12.3	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Lead	85.3		1.2	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Magnesium	9340		24.5	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Manganese	904		0.2	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Nickel	21.6		6.13	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Potassium	1910		36.8	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Vanadium	28.5		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Zinc	135		2.5	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Mercury	0.167	0.0249	NR	mg/kg dry	1.00	09/20/10 15:30	JRK	10I1343	7471A	
<u>General Chemistry Parameters</u>										
Percent Solids	79		0.010	NR	%	1.00	09/16/10 10:26	JRR	10I0914	Dry Weight

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
MW-3 (4-6)	RTI1016-01	Solid	09/14/10 10:40	09/15/10 14:45	
SB-5 (0-2)	RTI0959-01	Solid	09/13/10 10:50	09/14/10 12:10	

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-3 (4-6) (RTI1016-01 - Solid)						Sampled: 09/14/10 10:40		Recvd: 09/15/10 14:45		
<u>Volatile Organic Compounds by EPA 8260B</u>										
1,1,1-Trichloroethane	ND		5.4	0.39	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,1,2,2-Tetrachloroethane	ND		5.4	0.88	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,1,2-Trichloroethane	ND		5.4	0.71	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.4	1.2	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,1-Dichloroethane	ND		5.4	0.66	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,1-Dichloroethene	ND		5.4	0.67	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,2,4-Trichlorobenzene	ND		5.4	0.33	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,2-Dibromo-3-chloropropene	ND		5.4	2.7	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,2-Dibromoethane	ND		5.4	0.70	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,2-Dichlorobenzene	ND		5.4	0.43	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,2-Dichloroethane	ND		5.4	0.27	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,2-Dichloropropane	ND		5.4	2.7	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,3-Dichlorobenzene	ND		5.4	0.28	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,4-Dichlorobenzene	ND		5.4	0.76	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Acetone	ND		27	4.6	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Benzene	ND		5.4	0.27	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Bromodichloromethane	ND		5.4	0.73	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Bromoform	ND		5.4	2.7	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Bromomethane	ND		5.4	0.49	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Carbon disulfide	ND		5.4	2.7	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Carbon Tetrachloride	ND		5.4	0.53	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Chlorobenzene	ND		5.4	0.72	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Dibromochloromethane	ND		5.4	0.70	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Chloroethane	ND		5.4	1.2	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Chloroform	ND		5.4	0.34	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Chloromethane	ND		5.4	0.33	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
cis-1,2-Dichloroethene	ND		5.4	0.70	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
cis-1,3-Dichloropropene	ND		5.4	0.78	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Cyclohexane	ND		5.4	0.76	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Dichlorodifluoromethane	ND		5.4	0.45	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Ethylbenzene	ND		5.4	0.38	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Isopropylbenzene	ND		5.4	0.82	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Methyl Acetate	ND	L	5.4	1.0	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.4	0.53	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Methylcyclohexane	ND		5.4	0.83	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Methylene Chloride	7.9		5.4	2.5	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Styrene	ND		5.4	0.27	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Tetrachloroethene	ND		5.4	0.73	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Toluene	ND		5.4	0.41	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
trans-1,2-Dichloroethene	ND		5.4	0.56	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
trans-1,3-Dichloropropene	ND		5.4	2.4	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Trichloroethene	ND		5.4	1.2	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Trichlorofluoromethane	ND		5.4	0.51	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
Vinyl chloride	ND		5.4	0.66	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Client ID: MW-3 (4-6) (RTI1016-01 - Solid) - cont.

Sampled: 09/14/10 10:40

Recvd: 09/15/10 14:45

Volatile Organic Compounds by EPA 8260B - cont.

Xylenes, total	ND		11	0.91	ug/kg dry	1.00	09/21/10 22:14	CDC	10I1494	8260B
1,2-Dichloroethane-d4	101 %		Surr Limits: (64-126%)				09/21/10 22:14	CDC	10I1494	8260B
4-Bromofluorobenzene	100 %		Surr Limits: (72-126%)				09/21/10 22:14	CDC	10I1494	8260B
Toluene-d8	107 %		Surr Limits: (71-125%)				09/21/10 22:14	CDC	10I1494	8260B

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND		190	41	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,4,6-Trichlorophenol	ND		190	12	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,4-Dichlorophenol	ND		190	9.8	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,4-Dimethylphenol	ND		190	50	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,4-Dinitrophenol	ND		360	65	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,4-Dinitrotoluene	ND		190	29	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,6-Dinitrotoluene	ND		190	46	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2-Chloronaphthalene	ND		190	13	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2-Chlorophenol	ND		190	9.5	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2-Methylnaphthalene	ND		190	2.3	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2-Methylphenol	ND		190	5.7	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2-Nitroaniline	ND		360	60	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2-Nitrophenol	ND		190	8.5	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
3,3'-Dichlorobenzidine	ND		190	160	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
3-Nitroaniline	ND		360	43	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4,6-Dinitro-2-methylphenol	ND		360	64	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4-Bromophenyl phenyl ether	ND		190	59	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4-Chloro-3-methylphenol	ND		190	7.7	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4-Chloroaniline	ND		190	55	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4-Chlorophenyl phenyl ether	ND		190	4.0	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4-Methylphenol	ND		190	10	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4-Nitroaniline	ND		360	21	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
4-Nitrophenol	ND		360	45	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Acenaphthene	ND		190	2.2	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Acenaphthylene	ND		190	1.5	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Acetophenone	ND		190	9.6	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Anthracene	ND		190	4.8	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Atrazine	ND		190	8.3	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Benzaldehyde	ND		190	20	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Benzo(a)anthracene	ND		190	3.2	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Benzo(a)pyrene	ND		190	4.5	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Benzo(b)fluoranthene	ND		190	3.6	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Benzo(ghi)perylene	ND		190	2.2	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Benzo(k)fluoranthene	ND		190	2.1	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Biphenyl	ND		190	12	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Bis(2-chloroethyl)ether	ND		190	16	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,2'-Oxybis(1-Chloropropane)	ND		190	19	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Bis(2-ethylhexyl)phthalate	ND		190	60	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Client ID: MW-3 (4-6) (RTI1016-01 - Solid) - cont.

Sampled: 09/14/10 10:40

Recvd: 09/15/10 14:45

Semivolatile Organics by GC/MS - cont.

Butyl benzyl phthalate	ND		190	50	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Caprolactam	ND		190	81	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Carbazole	ND		190	2.2	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Chrysene	ND		190	1.9	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Dibenzo(a,h)anthracene	ND		190	2.2	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Dibenzofuran	ND		190	1.9	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Diethyl phthalate	ND		190	5.6	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Dimethyl phthalate	ND		190	4.9	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Di-n-butyl phthalate	ND		190	64	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Di-n-octyl phthalate	ND		190	4.4	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Fluoranthene	ND		190	2.7	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Fluorene	ND		190	4.3	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Hexachlorobenzene	ND		190	9.3	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Hexachlorobutadiene	ND		190	9.5	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Hexachlorocyclopentadiene	ND		190	56	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Hexachloroethane	ND		190	14	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Indeno(1,2,3-cd)pyrene	ND		190	5.2	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Isophorone	ND		190	9.3	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Naphthalene	ND		190	3.1	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Nitrobenzene	ND		190	8.3	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
N-Nitrosodi-n-propylamine	ND		190	15	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
N-Nitrosodiphenylamine	ND		190	10	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Pentachlorophenol	ND		360	64	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Phenanthrene	ND		190	3.9	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Phenol	ND		190	20	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
Pyrene	ND		190	1.2	ug/kg dry	1.00	09/22/10 23:32	JLG	10I1091	8270C
2,4,6-Tribromophenol	109 %		Surr Limits: (39-146%)				09/22/10 23:32	JLG	10I1091	8270C
2-Fluorobiphenyl	90 %		Surr Limits: (37-120%)				09/22/10 23:32	JLG	10I1091	8270C
2-Fluorophenol	76 %		Surr Limits: (18-120%)				09/22/10 23:32	JLG	10I1091	8270C
Nitrobenzene-d5	89 %		Surr Limits: (34-132%)				09/22/10 23:32	JLG	10I1091	8270C
Phenol-d5	83 %		Surr Limits: (11-120%)				09/22/10 23:32	JLG	10I1091	8270C
p-Terphenyl-d14	79 %		Surr Limits: (58-147%)				09/22/10 23:32	JLG	10I1091	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDD [2C]	ND		1.8	0.35	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
4,4'-DDE [2C]	ND		1.8	0.27	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
4,4'-DDT [2C]	ND		1.8	0.18	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Aldrin [2C]	ND		1.8	0.44	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
alpha-BHC [2C]	ND		1.8	0.32	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
beta-BHC [2C]	ND		1.8	0.19	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Chlordane [2C]	ND		18	4.0	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
delta-BHC [2C]	ND		1.8	0.24	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Dieldrin [2C]	ND		1.8	0.43	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Endosulfan I [2C]	ND		1.8	0.23	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Endosulfan II [2C]	ND		1.8	0.32	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Endosulfan sulfate [2C]	ND		1.8	0.33	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Endrin [2C]	ND		1.8	0.25	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Endrin aldehyde [2C]	ND		1.8	0.46	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Client ID: MW-3 (4-6) (RTI1016-01 - Solid) - cont.

Sampled: 09/14/10 10:40

Recvd: 09/15/10 14:45

Organochlorine Pesticides by EPA Method 8081A - cont.

gamma-BHC (Lindane) [2C]	ND		1.8	0.31	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Heptachlor [2C]	ND		1.8	0.28	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Heptachlor epoxide [2C]	ND		1.8	0.46	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Methoxychlor [2C]	ND		1.8	0.25	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Toxaphene [2C]	ND		18	10	ug/kg dry	1.00	09/18/10 15:22	tchro	10I1075	8081A
Decachlorobiphenyl [2C]	91 %		Surr Limits: (42-146%)				09/18/10 15:22	tchro	10I1075	8081A
Tetrachloro-m-xylene [2C]	82 %		Surr Limits: (37-136%)				09/18/10 15:22	tchro	10I1075	8081A

Polychlorinated Biphenyls by EPA Method 8082

Aroclor 1016	ND		18	3.5	ug/kg dry	1.00	09/19/10 00:58	JxM	10I1073	8082
Aroclor 1221	ND		18	3.5	ug/kg dry	1.00	09/19/10 00:58	JxM	10I1073	8082
Aroclor 1232	ND		18	3.5	ug/kg dry	1.00	09/19/10 00:58	JxM	10I1073	8082
Aroclor 1242	ND		18	3.9	ug/kg dry	1.00	09/19/10 00:58	JxM	10I1073	8082
Aroclor 1248	ND		18	3.5	ug/kg dry	1.00	09/19/10 00:58	JxM	10I1073	8082
Aroclor 1254	ND		18	3.8	ug/kg dry	1.00	09/19/10 00:58	JxM	10I1073	8082
Aroclor 1260	ND		18	8.4	ug/kg dry	1.00	09/19/10 00:58	JxM	10I1073	8082
Decachlorobiphenyl	95 %		Surr Limits: (34-148%)				09/19/10 00:58	JxM	10I1073	8082
Tetrachloro-m-xylene	82 %		Surr Limits: (35-134%)				09/19/10 00:58	JxM	10I1073	8082

Total Metals by SW 846 Series Methods

Aluminum	11600		10.2	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Antimony	ND		15.3	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Arsenic	4.5		2.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Barium	136		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Beryllium	0.562		0.204	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Cadmium	ND		0.204	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Calcium	55100		51.1	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Chromium	14.3		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Cobalt	13.0		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Copper	19.4		1.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Iron	18000		10.2	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Lead	14.7		1.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Magnesium	20600		20.4	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Manganese	648	B1, B	0.2	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Nickel	22.0		5.11	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Potassium	1820		30.7	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Selenium	ND		4.1	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Silver	ND		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Sodium	260		143	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Thallium	ND		6.1	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Vanadium	21.6		0.511	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Zinc	68.6		2.0	NR	mg/kg dry	1.00	09/22/10 18:47	DAN	10I1415	6010B
Mercury	0.0218		0.0213	NR	mg/kg dry	1.00	09/20/10 15:32	JRK	10I1343	7471A

General Chemistry Parameters

Percent Solids	90		0.010	NR	%	1.00	09/16/10 16:43	JRR	10I1002	Dry Weight
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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-3 (4-6) (RTI1016-01 - Solid) - cont.						Sampled: 09/14/10 10:40		Recvd: 09/15/10 14:45		
<u>General Chemistry Parameters - cont.</u>										
Total Cyanide	ND		1.0	0.5	mg/kg dry	1.00	09/21/10 09:21	jmm	10I1387	9012A

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

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Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: SB-5 (0-2) (RTI0959-01 - Solid)						Sampled: 09/13/10 10:50		Recvd: 09/14/10 12:10		
<u>Volatile Organic Compounds by EPA 8260B</u>										
1,1,1-Trichloroethane	ND		6.3	0.46	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,1,2,2-Tetrachloroethane	ND		6.3	1.0	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,1,2-Trichloroethane	ND		6.3	0.82	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.3	1.4	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,1-Dichloroethane	ND		6.3	0.77	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,1-Dichloroethene	ND		6.3	0.77	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,2,4-Trichlorobenzene	ND		6.3	0.38	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,2-Dibromo-3-chloropropene	ND		6.3	3.1	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,2-Dibromoethane	ND		6.3	0.81	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,2-Dichlorobenzene	ND		6.3	0.49	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,2-Dichloroethane	ND		6.3	0.32	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,2-Dichloropropane	ND		6.3	3.1	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,3-Dichlorobenzene	ND		6.3	0.32	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,4-Dichlorobenzene	ND		6.3	0.88	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
2-Butanone	ND		31	2.3	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
4-Methyl-2-pentanone	ND		31	2.1	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Acetone	ND		31	5.3	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Benzene	ND		6.3	0.31	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Bromodichloromethane	ND		6.3	0.84	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Bromoform	ND		6.3	3.1	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Bromomethane	ND		6.3	0.57	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Carbon disulfide	ND		6.3	3.1	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Carbon Tetrachloride	ND		6.3	0.61	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Chlorobenzene	ND		6.3	0.83	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Dibromochloromethane	ND		6.3	0.81	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Chloroethane	ND		6.3	1.4	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Chloroform	ND		6.3	0.39	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Chloromethane	ND		6.3	0.38	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
cis-1,2-Dichloroethene	ND		6.3	0.81	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
cis-1,3-Dichloropropene	ND		6.3	0.91	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Cyclohexane	ND		6.3	0.88	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Dichlorodifluoromethane	ND		6.3	0.52	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Ethylbenzene	ND		6.3	0.43	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Isopropylbenzene	ND		6.3	0.95	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Methyl Acetate	ND		6.3	1.2	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.3	0.62	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Methylcyclohexane	ND		6.3	0.96	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Methylene Chloride	3.5	J	6.3	2.9	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Styrene	ND		6.3	0.31	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Tetrachloroethene	ND		6.3	0.84	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Toluene	ND		6.3	0.48	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
trans-1,2-Dichloroethene	ND		6.3	0.65	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
trans-1,3-Dichloropropene	ND		6.3	2.8	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Trichloroethene	ND		6.3	1.4	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Trichlorofluoromethane	ND		6.3	0.60	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
Vinyl chloride	ND		6.3	0.77	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Client ID: SB-5 (0-2) (RTI0959-01 - Solid) - cont.

Sampled: 09/13/10 10:50

Recvd: 09/14/10 12:10

Volatile Organic Compounds by EPA 8260B - cont.

Xylenes, total	ND		13	1.1	ug/kg dry	1.00	09/18/10 16:20	PJQ	10I1220	8260B
1,2-Dichloroethane-d4	106 %		Surr Limits: (64-126%)				09/18/10 16:20	PJQ	10I1220	8260B
4-Bromofluorobenzene	103 %		Surr Limits: (72-126%)				09/18/10 16:20	PJQ	10I1220	8260B
Toluene-d8	111 %		Surr Limits: (71-125%)				09/18/10 16:20	PJQ	10I1220	8260B

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2,4-Dimethylphenol	ND		210	57	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2,4-Dinitrophenol	ND		410	74	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2,4-Dinitrotoluene	ND		210	33	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2,6-Dinitrotoluene	ND		210	52	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2-Methylnaphthalene	ND		210	2.6	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2-Methylphenol	ND		210	6.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2-Nitroaniline	ND		410	68	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2-Nitrophenol	ND		210	9.7	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
3,3'-Dichlorobenzidine	ND		210	190	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
3-Nitroaniline	ND		410	49	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4,6-Dinitro-2-methylphenol	ND		410	73	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4-Bromophenyl phenyl ether	ND		210	67	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4-Chloro-3-methylphenol	ND		210	8.7	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4-Chloroaniline	ND		210	62	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4-Chlorophenyl phenyl ether	ND		210	4.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4-Methylphenol	ND		210	12	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4-Nitroaniline	ND		410	24	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Acenaphthene	ND		210	2.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Acetophenone	ND		210	11	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Anthracene	20	J	210	5.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Atrazine	ND		210	9.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(a)anthracene	73	J	210	3.6	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(a)pyrene	59	J	210	5.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(b)fluoranthene	84	J	210	4.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(ghi)perylene	47	J	210	2.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Benzo(k)fluoranthene	31	J	210	2.3	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
2,2'-Oxybis(1-Chloropropyl)ane	ND		210	22	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Bis(2-ethylhexyl)phthalate	120	J	210	68	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Client ID: SB-5 (0-2) (RTI0959-01 - Solid) - cont.

Sampled: 09/13/10 10:50

Recvd: 09/14/10 12:10

Semivolatile Organics by GC/MS - cont.

Butyl benzyl phthalate	ND		210	57	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Caprolactam	ND		210	91	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Carbazole	ND		210	2.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Chrysene	77	J	210	2.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Dibenzo(a,h)anthracene	ND		210	2.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Dibenzofuran	ND		210	2.2	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Diethyl phthalate	ND		210	6.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Dimethyl phthalate	ND		210	5.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Di-n-butyl phthalate	ND		210	73	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Di-n-octyl phthalate	ND		210	4.9	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Fluoranthene	150	J	210	3.1	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Fluorene	ND		210	4.9	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Hexachlorobenzene	ND		210	11	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Hexachlorocyclopentadiene	ND		210	64	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Indeno(1,2,3-cd)pyrene	43	J	210	5.8	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Isophorone	ND		210	11	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Naphthalene	ND		210	3.5	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Nitrobenzene	ND		210	9.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
N-Nitrosodi-n-propylamine	ND		210	17	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
N-Nitrosodiphenylamine	ND		210	12	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Pentachlorophenol	ND		410	72	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Phenanthrene	100	J	210	4.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Phenol	ND		210	22	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C
Pyrene	120	J	210	1.4	ug/kg dry	1.00	09/22/10 23:09	JLG	10I1091	8270C

2,4,6-Tribromophenol	106 %	Surr Limits: (39-146%)					09/22/10 23:09	JLG	10I1091	8270C
2-Fluorobiphenyl	86 %	Surr Limits: (37-120%)					09/22/10 23:09	JLG	10I1091	8270C
2-Fluorophenol	71 %	Surr Limits: (18-120%)					09/22/10 23:09	JLG	10I1091	8270C
Nitrobenzene-d5	84 %	Surr Limits: (34-132%)					09/22/10 23:09	JLG	10I1091	8270C
Phenol-d5	77 %	Surr Limits: (11-120%)					09/22/10 23:09	JLG	10I1091	8270C
p-Terphenyl-d14	76 %	Surr Limits: (58-147%)					09/22/10 23:09	JLG	10I1091	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDD [2C]	ND		2.1	0.41	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
4,4'-DDE [2C]	4.1		2.1	0.31	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
4,4'-DDT [2C]	4.0		2.1	0.21	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Aldrin [2C]	ND		2.1	0.51	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
alpha-BHC [2C]	ND		2.1	0.38	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
beta-BHC [2C]	ND		2.1	0.23	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Chlordane [2C]	ND		2.1	4.6	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
delta-BHC [2C]	ND		2.1	0.28	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Dieldrin [2C]	ND		2.1	0.50	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Endosulfan I [2C]	ND		2.1	0.26	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Endosulfan II [2C]	ND		2.1	0.38	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Endosulfan sulfate [2C]	ND		2.1	0.39	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Endrin [2C]	ND		2.1	0.29	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Endrin aldehyde [2C]	ND		2.1	0.53	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
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SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Client ID: SB-5 (0-2) (RTI0959-01 - Solid) - cont.

Sampled: 09/13/10 10:50

Recvd: 09/14/10 12:10

Organochlorine Pesticides by EPA Method 8081A - cont.

gamma-BHC (Lindane) [2C]	ND		2.1	0.36	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Heptachlor [2C]	ND		2.1	0.33	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Heptachlor epoxide [2C]	ND		2.1	0.54	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Methoxychlor [2C]	ND		2.1	0.29	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Toxaphene [2C]	ND		21	12	ug/kg dry	1.00	09/18/10 14:46	MAN	10I1075	8081A
Decachlorobiphenyl [2C]	98 %		Surr Limits: (42-146%)				09/18/10 14:46	MAN	10I1075	8081A
Tetrachloro-m-xylene [2C]	83 %		Surr Limits: (37-136%)				09/18/10 14:46	MAN	10I1075	8081A

Polychlorinated Biphenyls by EPA Method 8082

Aroclor 1016 [2C]	ND	QSU, D02	210	40	ug/kg dry	10.0	09/16/10 17:45	JxM	10I0937	8082
Aroclor 1221 [2C]	ND	QSU, D02	210	40	ug/kg dry	10.0	09/16/10 17:45	JxM	10I0937	8082
Aroclor 1232 [2C]	ND	QSU, D02	210	40	ug/kg dry	10.0	09/16/10 17:45	JxM	10I0937	8082
Aroclor 1242 [2C]	ND	QSU, D02	210	45	ug/kg dry	10.0	09/16/10 17:45	JxM	10I0937	8082
Aroclor 1248 [2C]	ND	QSU, D02	210	40	ug/kg dry	10.0	09/16/10 17:45	JxM	10I0937	8082
Aroclor 1254 [2C]	ND	QSU, D02	210	43	ug/kg dry	10.0	09/16/10 17:45	JxM	10I0937	8082
Aroclor 1260 [2C]	ND	QSU, D02	210	96	ug/kg dry	10.0	09/16/10 17:45	JxM	10I0937	8082
Decachlorobiphenyl [2C]	89 %	QSU, D02	Surr Limits: (34-148%)				09/16/10 17:45	JxM	10I0937	8082
Tetrachloro-m-xylene [2C]	134 %	QSU, D02	Surr Limits: (35-134%)				09/16/10 17:45	JxM	10I0937	8082

Total Metals by SW 846 Series Methods

Aluminum	13800		12.3	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Antimony	ND		18.4	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Arsenic	6.4		2.5	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Barium	133		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Beryllium	0.649		0.245	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Cadmium	0.621		0.245	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Calcium	13200		61.3	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Chromium	19.2		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Cobalt	11.8		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Copper	22.7		1.2	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Iron	23600		12.3	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Lead	85.3		1.2	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Magnesium	9340		24.5	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Manganese	904	B1, B	0.2	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Nickel	21.6		6.13	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Potassium	1910		36.8	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Selenium	ND		4.9	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Silver	ND		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Sodium	ND		172	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Thallium	ND		7.4	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Vanadium	28.5		0.613	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Zinc	135		2.5	NR	mg/kg dry	1.00	09/22/10 18:41	DAN	10I1415	6010B
Mercury	0.167		0.0249	NR	mg/kg dry	1.00	09/20/10 15:30	JRK	10I1343	7471A

General Chemistry Parameters

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

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Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: SB-5 (0-2) (RTI0959-01 - Solid) - cont.						Sampled: 09/13/10 10:50		Recvd: 09/14/10 12:10		
<u>General Chemistry Parameters - cont.</u>										
Percent Solids	79		0.010	NR	%	1.00	09/16/10 10:26	JRR	10I0914	Dry Weight
Total Cyanide	ND		1.2	0.6	mg/kg dry	1.00	09/18/10 11:52	RJF	10I1023	9012A

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Reported: 09/30/10 11:33

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
General Chemistry Parameters									
9012A	10I1023	RTI0959-01	0.51	g	50.00	mL	09/16/10 12:27	AMP	Cn Digestion
Dry Weight	10I0914	RTI0959-01	10.00	g	10.00	g	09/15/10 09:15	JRR	Dry Weight
Organochlorine Pesticides by EPA Method 8081A									
8081A	10I1075	RTI0959-01	30.08	g	10.00	mL	09/17/10 07:30	EKD	3550B GC
Polychlorinated Biphenyls by EPA Method 8082									
8082	10I0937	RTI0959-01	30.66	g	10.00	mL	09/15/10 17:00	LTT	3550B GC
Semivolatile Organics by GC/MS									
8270C	10I1091	RTI0959-01	30.16	g	1.00	mL	09/17/10 07:00	EKD	3550B MB
Total Metals by SW 846 Series Methods									
6010B	10I1415	RTI0959-01	0.51	g	50.00	mL	09/21/10 17:50	MDM	3050B
7471A	10I1343	RTI0959-01	0.61	g	50.00	mL	09/20/10 13:25	JRK	7471A_
Volatile Organic Compounds by EPA 8260B									
8260B	10I1220	RTI0959-01	5.00	g	5.00	mL	09/18/10 10:16	PJQ	5030B MS

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
General Chemistry Parameters									
9012A	10I1387	RTI1016-01	0.54	g	50.00	mL	09/20/10 19:39	RMB	Cn Digestion
Dry Weight	10I1002	RTI1016-01	10.00	g	10.00	g	09/16/10 09:15	JRR	Dry Weight
Organochlorine Pesticides by EPA Method 8081A									
8081A	10I1075	RTI1016-01	30.88	g	10.00	mL	09/17/10 07:30	EKD	3550B GC
Polychlorinated Biphenyls by EPA Method 8082									
8082	10I1073	RTI1016-01	30.88	g	10.00	mL	09/17/10 07:00	EKD	3550B GC
Semivolatile Organics by GC/MS									
8270C	10I1091	RTI1016-01	30.06	g	1.00	mL	09/17/10 07:00	EKD	3550B MB
Total Metals by SW 846 Series Methods									
6010B	10I1415	RTI1016-01	0.54	g	50.00	mL	09/21/10 17:50	MDM	3050B
7471A	10I1343	RTI1016-01	0.62	g	50.00	mL	09/20/10 13:25	JRK	7471A_
Volatile Organic Compounds by EPA 8260B									
8260B	10I1494	RTI1016-01	5.09	g	5.00	mL	09/21/10 18:03	CDC	5035A MS

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Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Blank Analyzed: 09/18/10 (Lab Number:10I1220-BLK1, Batch: 10I1220)											
1,1,1-Trichloroethane			5.0	0.36	ug/kg wet	ND					
1,1,2,2-Tetrachloroethane			5.0	0.81	ug/kg wet	ND					
1,1,2-Trichloroethane			5.0	0.65	ug/kg wet	ND					
1,1,2-Trichloro-1,2,2-trifluoroethane			5.0	1.1	ug/kg wet	ND					
1,1-Dichloroethane			5.0	0.61	ug/kg wet	ND					
1,1-Dichloroethene			5.0	0.61	ug/kg wet	ND					
1,2,4-Trichlorobenzene			5.0	0.30	ug/kg wet	ND					
1,2-Dibromo-3-chloropropane			5.0	2.5	ug/kg wet	ND					
1,2-Dibromoethane			5.0	0.64	ug/kg wet	ND					
1,2-Dichlorobenzene			5.0	0.39	ug/kg wet	ND					
1,2-Dichloroethane			5.0	0.25	ug/kg wet	ND					
1,2-Dichloropropane			5.0	2.5	ug/kg wet	ND					
1,3-Dichlorobenzene			5.0	0.26	ug/kg wet	ND					
1,4-Dichlorobenzene			5.0	0.70	ug/kg wet	ND					
2-Butanone			25	1.8	ug/kg wet	ND					
2-Hexanone			25	2.5	ug/kg wet	ND					
4-Methyl-2-pentanone			25	1.6	ug/kg wet	ND					
Acetone			25	4.2	ug/kg wet	ND					
Benzene			5.0	0.24	ug/kg wet	ND					
Bromodichloromethane			5.0	0.67	ug/kg wet	ND					
Bromoform			5.0	2.5	ug/kg wet	ND					
Bromomethane			5.0	0.45	ug/kg wet	ND					
Carbon disulfide			5.0	2.5	ug/kg wet	ND					
Carbon Tetrachloride			5.0	0.48	ug/kg wet	ND					
Chlorobenzene			5.0	0.66	ug/kg wet	ND					
Dibromochloromethane			5.0	0.64	ug/kg wet	ND					
Chloroethane			5.0	1.1	ug/kg wet	ND					
Chloroform			5.0	0.31	ug/kg wet	ND					
Chloromethane			5.0	0.30	ug/kg wet	ND					
cis-1,2-Dichloroethene			5.0	0.64	ug/kg wet	ND					
cis-1,3-Dichloropropene			5.0	0.72	ug/kg wet	ND					
Cyclohexane			5.0	0.70	ug/kg wet	ND					
Dichlorodifluoromethane			5.0	0.41	ug/kg wet	ND					
Ethylbenzene			5.0	0.34	ug/kg wet	ND					
Isopropylbenzene			5.0	0.75	ug/kg wet	ND					
Methyl Acetate			5.0	0.93	ug/kg wet	ND					

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Blank Analyzed: 09/18/10 (Lab Number:10I1220-BLK1, Batch: 10I1220)											
Methyl-t-Butyl Ether (MTBE)			5.0	0.49	ug/kg wet	ND					
Methylcyclohexane			5.0	0.76	ug/kg wet	ND					
Methylene Chloride			5.0	2.3	ug/kg wet	ND					
Styrene			5.0	0.25	ug/kg wet	ND					
Tetrachloroethene			5.0	0.67	ug/kg wet	ND					
Toluene			5.0	0.38	ug/kg wet	ND					
trans-1,2-Dichloroethene			5.0	0.52	ug/kg wet	ND					
trans-1,3-Dichloropropene			5.0	2.2	ug/kg wet	ND					
Trichloroethene			5.0	1.1	ug/kg wet	ND					
Trichlorofluoromethane			5.0	0.47	ug/kg wet	ND					
Vinyl chloride			5.0	0.61	ug/kg wet	ND					
Xylenes, total			10	0.84	ug/kg wet	ND					
<i>Surrogate:</i>						<i>ug/kg wet</i>	<i>100</i>	<i>64-126</i>			
<i>1,2-Dichloroethane-d4</i>											
<i>Surrogate:</i>						<i>ug/kg wet</i>	<i>102</i>	<i>72-126</i>			
<i>4-Bromofluorobenzene</i>											
<i>Surrogate: Toluene-d8</i>						<i>ug/kg wet</i>	<i>111</i>	<i>71-125</i>			
LCS Analyzed: 09/18/10 (Lab Number:10I1220-BS1, Batch: 10I1220)											
1,1,1-Trichloroethane			5.0	0.36	ug/kg wet	ND		77-121			
1,1,2,2-Tetrachloroethane			5.0	0.81	ug/kg wet	ND		80-120			
1,1,2-Trichloroethane			5.0	0.65	ug/kg wet	ND		78-122			
1,1,2-Trichloro-1,2,2-trifluoroethane			5.0	1.1	ug/kg wet	ND		60-140			
1,1-Dichloroethane		50.0	5.0	0.61	ug/kg wet	45.0	90	79-126			
1,1-Dichloroethene		50.0	5.0	0.61	ug/kg wet	45.8	92	65-153			
1,2,4-Trichlorobenzene			5.0	0.30	ug/kg wet	ND		64-120			
1,2-Dibromo-3-chloropropane			5.0	2.5	ug/kg wet	ND		63-124			
1,2-Dibromoethane			5.0	0.64	ug/kg wet	ND		78-120			
1,2-Dichlorobenzene		50.0	5.0	0.39	ug/kg wet	47.9	96	75-120			
1,2-Dichloroethane		50.0	5.0	0.25	ug/kg wet	46.5	93	77-122			
1,2-Dichloropropane			5.0	2.5	ug/kg wet	ND		75-124			
1,3-Dichlorobenzene			5.0	0.26	ug/kg wet	ND		74-120			
1,4-Dichlorobenzene			5.0	0.70	ug/kg wet	ND		73-120			
2-Butanone			25	1.8	ug/kg wet	ND		70-134			
2-Hexanone			25	2.5	ug/kg wet	ND		59-130			
4-Methyl-2-pentanone			25	1.6	ug/kg wet	ND		65-133			
Acetone			25	4.2	ug/kg wet	ND		61-137			

Benchmark Environmental & Engineering Science
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SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
LCS Analyzed: 09/18/10 (Lab Number:10I1220-BS1, Batch: 10I1220)											
Benzene		50.0	5.0	0.24	ug/kg wet	45.6	91	79-127			
Bromodichloromethane			5.0	0.67	ug/kg wet	ND		80-122			
Bromoform			5.0	2.5	ug/kg wet	ND		68-126			
Bromomethane			5.0	0.45	ug/kg wet	ND		37-149			
Carbon disulfide			5.0	2.5	ug/kg wet	ND		64-131			
Carbon Tetrachloride			5.0	0.48	ug/kg wet	ND		75-135			
Chlorobenzene		50.0	5.0	0.66	ug/kg wet	50.7	101	76-124			
Dibromochloromethane			5.0	0.64	ug/kg wet	ND		76-125			
Chloroethane			5.0	1.1	ug/kg wet	ND		69-135			
Chloroform			5.0	0.31	ug/kg wet	ND		80-118			
Chloromethane			5.0	0.30	ug/kg wet	ND		63-127			
cis-1,2-Dichloroethene		50.0	5.0	0.64	ug/kg wet	44.9	90	81-117			
cis-1,3-Dichloropropene			5.0	0.72	ug/kg wet	ND		82-120			
Cyclohexane			5.0	0.70	ug/kg wet	ND		70-130			
Dichlorodifluoromethane			5.0	0.41	ug/kg wet	ND		57-142			
Ethylbenzene		50.0	5.0	0.34	ug/kg wet	50.4	101	80-120			
Isopropylbenzene			5.0	0.75	ug/kg wet	ND		72-120			
Methyl Acetate			5.0	0.93	ug/kg wet	ND		60-140			
Methyl-t-Butyl Ether (MTBE)		50.0	5.0	0.49	ug/kg wet	42.1	84	63-125			
Methylcyclohexane			5.0	0.76	ug/kg wet	ND		60-140			
Methylene Chloride			5.0	2.3	ug/kg wet	4.15		61-127			J
Styrene			5.0	0.25	ug/kg wet	ND		80-120			
Tetrachloroethene		50.0	5.0	0.67	ug/kg wet	50.7	101	74-122			
Toluene		50.0	5.0	0.38	ug/kg wet	50.3	101	74-128			
trans-1,2-Dichloroethene		50.0	5.0	0.52	ug/kg wet	46.7	93	78-126			
trans-1,3-Dichloropropene			5.0	2.2	ug/kg wet	ND		73-123			
Trichloroethene		50.0	5.0	1.1	ug/kg wet	46.7	93	77-129			
Trichlorofluoromethane			5.0	0.47	ug/kg wet	ND		65-146			
Vinyl chloride			5.0	0.61	ug/kg wet	ND		61-133			
Xylenes, total		150	10	0.84	ug/kg wet	156	104	80-120			
<i>Surrogate:</i>					ug/kg wet		100	64-126			
<i>1,2-Dichloroethane-d4</i>					ug/kg wet		106	72-126			
<i>Surrogate:</i>					ug/kg wet						
<i>4-Bromofluorobenzene</i>					ug/kg wet						
<i>Surrogate: Toluene-d8</i>					ug/kg wet		110	71-125			

Volatile Organic Compounds by EPA 8260B

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Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Blank Analyzed: 09/21/10 (Lab Number:10I1494-BLK1, Batch: 10I1494)											
1,1,1-Trichloroethane			5.0	0.36	ug/kg wet	ND					
1,1,2,2-Tetrachloroethane			5.0	0.81	ug/kg wet	ND					
1,1,2-Trichloroethane			5.0	0.65	ug/kg wet	ND					
1,1,2-Trichloro-1,2,2-trifluoroethane			5.0	1.1	ug/kg wet	ND					
1,1-Dichloroethane			5.0	0.61	ug/kg wet	ND					
1,1-Dichloroethene			5.0	0.61	ug/kg wet	ND					
1,2,4-Trichlorobenzene			5.0	0.30	ug/kg wet	ND					
1,2-Dibromo-3-chloropropane			5.0	2.5	ug/kg wet	ND					
1,2-Dibromoethane			5.0	0.64	ug/kg wet	ND					
1,2-Dichlorobenzene			5.0	0.39	ug/kg wet	ND					
1,2-Dichloroethane			5.0	0.25	ug/kg wet	ND					
1,2-Dichloropropane			5.0	2.5	ug/kg wet	ND					
1,3-Dichlorobenzene			5.0	0.26	ug/kg wet	ND					
1,4-Dichlorobenzene			5.0	0.70	ug/kg wet	ND					
2-Butanone			25	1.8	ug/kg wet	ND					
2-Hexanone			25	2.5	ug/kg wet	ND					
4-Methyl-2-pentanone			25	1.6	ug/kg wet	ND					
Acetone			25	4.2	ug/kg wet	ND					
Benzene			5.0	0.24	ug/kg wet	ND					
Bromodichloromethane			5.0	0.67	ug/kg wet	ND					
Bromoform			5.0	2.5	ug/kg wet	ND					
Bromomethane			5.0	0.45	ug/kg wet	ND					
Carbon disulfide			5.0	2.5	ug/kg wet	ND					
Carbon Tetrachloride			5.0	0.48	ug/kg wet	ND					
Chlorobenzene			5.0	0.66	ug/kg wet	ND					
Dibromochloromethane			5.0	0.64	ug/kg wet	ND					
Chloroethane			5.0	1.1	ug/kg wet	ND					
Chloroform			5.0	0.31	ug/kg wet	ND					
Chloromethane			5.0	0.30	ug/kg wet	ND					
cis-1,2-Dichloroethene			5.0	0.64	ug/kg wet	ND					
cis-1,3-Dichloropropene			5.0	0.72	ug/kg wet	ND					
Cyclohexane			5.0	0.70	ug/kg wet	ND					
Dichlorodifluoromethane			5.0	0.41	ug/kg wet	ND					
Ethylbenzene			5.0	0.34	ug/kg wet	ND					
Isopropylbenzene			5.0	0.75	ug/kg wet	ND					
Methyl Acetate			5.0	0.93	ug/kg wet	ND					

Benchmark Environmental & Engineering Science
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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Blank Analyzed: 09/21/10 (Lab Number:10I1494-BLK1, Batch: 10I1494)											
Methyl-t-Butyl Ether (MTBE)			5.0	0.49	ug/kg wet	ND					
Methylcyclohexane			5.0	0.76	ug/kg wet	ND					
Methylene Chloride			5.0	2.3	ug/kg wet	ND					
Styrene			5.0	0.25	ug/kg wet	ND					
Tetrachloroethene			5.0	0.67	ug/kg wet	ND					
Toluene			5.0	0.38	ug/kg wet	ND					
trans-1,2-Dichloroethene			5.0	0.52	ug/kg wet	ND					
trans-1,3-Dichloropropene			5.0	2.2	ug/kg wet	ND					
Trichloroethene			5.0	1.1	ug/kg wet	ND					
Trichlorofluoromethane			5.0	0.47	ug/kg wet	ND					
Vinyl chloride			5.0	0.61	ug/kg wet	ND					
Xylenes, total			10	0.84	ug/kg wet	ND					
<i>Surrogate:</i>						<i>ug/kg wet</i>	92	64-126			
<i>1,2-Dichloroethane-d4</i>											
<i>Surrogate:</i>						<i>ug/kg wet</i>	97	72-126			
<i>4-Bromofluorobenzene</i>											
<i>Surrogate: Toluene-d8</i>						<i>ug/kg wet</i>	104	71-125			
LCS Analyzed: 09/21/10 (Lab Number:10I1494-BS1, Batch: 10I1494)											
1,1,1-Trichloroethane		50.0	5.0	0.36	ug/kg wet	48.3	97	77-121			
1,1,2,2-Tetrachloroethane		50.0	5.0	0.81	ug/kg wet	42.6	85	80-120			
1,1,2-Trichloroethane		50.0	5.0	0.65	ug/kg wet	47.0	94	78-122			
1,1,2-Trichloro-1,2,2-trifluoroethane		50.0	5.0	1.1	ug/kg wet	55.2	110	60-140			
1,1-Dichloroethane		50.0	5.0	0.61	ug/kg wet	51.9	104	79-126			
1,1-Dichloroethene		50.0	5.0	0.61	ug/kg wet	46.5	93	65-153			
1,2,4-Trichlorobenzene		50.0	5.0	0.30	ug/kg wet	43.4	87	64-120			
1,2-Dibromo-3-chloropropane		50.0	5.0	2.5	ug/kg wet	36.5	73	63-124			
1,2-Dibromoethane		50.0	5.0	0.64	ug/kg wet	47.1	94	78-120			
1,2-Dichlorobenzene		50.0	5.0	0.39	ug/kg wet	48.3	97	75-120			
1,2-Dichloroethane		50.0	5.0	0.25	ug/kg wet	46.9	94	77-122			
1,2-Dichloropropane		50.0	5.0	2.5	ug/kg wet	47.6	95	75-124			
1,3-Dichlorobenzene		50.0	5.0	0.26	ug/kg wet	50.4	101	74-120			
1,4-Dichlorobenzene		50.0	5.0	0.70	ug/kg wet	49.1	98	73-120			
2-Butanone		250	25	1.8	ug/kg wet	244	98	70-134			
2-Hexanone		250	25	2.5	ug/kg wet	248	99	59-130			
4-Methyl-2-pentanone		250	25	1.6	ug/kg wet	250	100	65-133			
Acetone		250	25	4.2	ug/kg wet	244	98	61-137			

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
LCS Analyzed: 09/21/10 (Lab Number:10I1494-BS1, Batch: 10I1494)											
Benzene		50.0	5.0	0.24	ug/kg wet	48.9	98	79-127			
Bromodichloromethane		50.0	5.0	0.67	ug/kg wet	45.6	91	80-122			
Bromoform		50.0	5.0	2.5	ug/kg wet	40.1	80	68-126			
Bromomethane		50.0	5.0	0.45	ug/kg wet	53.8	108	37-149			
Carbon disulfide		50.0	5.0	2.5	ug/kg wet	50.0	100	64-131			
Carbon Tetrachloride		50.0	5.0	0.48	ug/kg wet	46.1	92	75-135			
Chlorobenzene		50.0	5.0	0.66	ug/kg wet	51.0	102	76-124			
Dibromochloromethane		50.0	5.0	0.64	ug/kg wet	44.6	89	76-125			
Chloroethane		50.0	5.0	1.1	ug/kg wet	51.6	103	69-135			
Chloroform		50.0	5.0	0.31	ug/kg wet	49.2	98	80-118			
Chloromethane		50.0	5.0	0.30	ug/kg wet	55.1	110	63-127			
cis-1,2-Dichloroethene		50.0	5.0	0.64	ug/kg wet	51.2	102	81-117			
cis-1,3-Dichloropropene		50.0	5.0	0.72	ug/kg wet	44.2	88	82-120			
Cyclohexane		50.0	5.0	0.70	ug/kg wet	53.1	106	70-130			
Dichlorodifluoromethane		50.0	5.0	0.41	ug/kg wet	44.2	88	57-142			
Ethylbenzene		50.0	5.0	0.34	ug/kg wet	50.5	101	80-120			
Isopropylbenzene		50.0	5.0	0.75	ug/kg wet	45.0	90	72-120			
Methyl Acetate		50.0	5.0	0.93	ug/kg wet	95.9	192	60-140			L
Methyl-t-Butyl Ether (MTBE)		50.0	5.0	0.49	ug/kg wet	44.2	88	63-125			
Methylcyclohexane		50.0	5.0	0.76	ug/kg wet	53.3	107	60-140			
Methylene Chloride		50.0	5.0	2.3	ug/kg wet	51.6	103	61-127			
Styrene		50.0	5.0	0.25	ug/kg wet	46.5	93	80-120			
Tetrachloroethene		50.0	5.0	0.67	ug/kg wet	52.6	105	74-122			
Toluene		50.0	5.0	0.38	ug/kg wet	51.3	103	74-128			
trans-1,2-Dichloroethene		50.0	5.0	0.52	ug/kg wet	50.2	100	78-126			
trans-1,3-Dichloropropene		50.0	5.0	2.2	ug/kg wet	44.9	90	73-123			
Trichloroethene		50.0	5.0	1.1	ug/kg wet	48.6	97	77-129			
Trichlorofluoromethane		50.0	5.0	0.47	ug/kg wet	58.5	117	65-146			
Vinyl chloride		50.0	5.0	0.61	ug/kg wet	49.0	98	61-133			
Xylenes, total		150	10	0.84	ug/kg wet	156	104	80-120			
<i>Surrogate:</i>					<i>ug/kg wet</i>		99	64-126			
<i>1,2-Dichloroethane-d4</i>											
<i>Surrogate:</i>					<i>ug/kg wet</i>		110	72-126			
<i>4-Bromofluorobenzene</i>											
<i>Surrogate: Toluene-d8</i>					<i>ug/kg wet</i>		111	71-125			

Matrix Spike Analyzed: 09/22/10 (Lab Number:10I1494-MS1, Batch: 10I1494)

QC Source Sample: RTI1016-01

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Matrix Spike Analyzed: 09/22/10 (Lab Number:10I1494-MS1, Batch: 10I1494)											
QC Source Sample: RTI1016-01											
1,1,1-Trichloroethane	ND	54.6	5.5	0.40	ug/kg dry	45.5	83	77-121			
1,1,2,2-Tetrachloroethane	ND	54.6	5.5	0.89	ug/kg dry	29.2	54	80-120			M8
1,1,2-Trichloroethane	ND	54.6	5.5	0.71	ug/kg dry	38.5	70	78-122			M8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	54.6	5.5	1.2	ug/kg dry	52.8	97	60-140			
1,1-Dichloroethane	ND	54.6	5.5	0.67	ug/kg dry	48.8	89	79-126			
1,1-Dichloroethene	ND	54.6	5.5	0.67	ug/kg dry	42.8	78	65-153			
1,2,4-Trichlorobenzene	ND	54.6	5.5	0.33	ug/kg dry	26.7	49	64-120			M8
1,2-Dibromo-3-chloropropane	ND	54.6	5.5	2.7	ug/kg dry	20.2	37	63-124			M8
1,2-Dibromoethane	ND	54.6	5.5	0.70	ug/kg dry	35.6	65	78-120			M8
1,2-Dichlorobenzene	ND	54.6	5.5	0.43	ug/kg dry	37.8	69	75-120			M8
1,2-Dichloroethane	ND	54.6	5.5	0.27	ug/kg dry	40.6	74	77-122			M8
1,2-Dichloropropane	ND	54.6	5.5	2.7	ug/kg dry	43.9	80	75-124			
1,3-Dichlorobenzene	ND	54.6	5.5	0.28	ug/kg dry	40.0	73	74-120			M8
1,4-Dichlorobenzene	ND	54.6	5.5	0.76	ug/kg dry	39.1	72	73-120			M8
2-Butanone	ND	273	27	2.0	ug/kg dry	136	50	70-134			M8
2-Hexanone	ND	273	27	2.7	ug/kg dry	144	53	59-130			M8
4-Methyl-2-pentanone	ND	273	27	1.8	ug/kg dry	155	57	65-133			M8
Acetone	ND	273	27	4.6	ug/kg dry	143	52	61-137			M8
Benzene	ND	54.6	5.5	0.27	ug/kg dry	46.7	86	79-127			
Bromodichloromethane	ND	54.6	5.5	0.73	ug/kg dry	40.4	74	80-122			M8
Bromoform	ND	54.6	5.5	2.7	ug/kg dry	28.0	51	68-126			M8
Bromomethane	ND	54.6	5.5	0.49	ug/kg dry	85.4	156	37-149			M7
Carbon disulfide	ND	54.6	5.5	2.7	ug/kg dry	47.3	87	64-131			
Carbon Tetrachloride	ND	54.6	5.5	0.53	ug/kg dry	43.5	80	75-135			
Chlorobenzene	ND	54.6	5.5	0.72	ug/kg dry	46.6	85	76-124			
Dibromochloromethane	ND	54.6	5.5	0.70	ug/kg dry	36.4	67	76-125			M8
Chloroethane	ND	54.6	5.5	1.2	ug/kg dry	67.3	123	69-135			
Chloroform	ND	54.6	5.5	0.34	ug/kg dry	46.8	86	80-118			
Chloromethane	ND	54.6	5.5	0.33	ug/kg dry	56.6	104	63-127			
cis-1,2-Dichloroethene	ND	54.6	5.5	0.70	ug/kg dry	47.2	87	81-117			
cis-1,3-Dichloropropene	ND	54.6	5.5	0.79	ug/kg dry	36.0	66	82-120			M8
Cyclohexane	ND	54.6	5.5	0.76	ug/kg dry	47.4	87	70-130			
Dichlorodifluoromethane	ND	54.6	5.5	0.45	ug/kg dry	44.0	81	57-142			
Ethylbenzene	ND	54.6	5.5	0.38	ug/kg dry	46.8	86	80-120			
Isopropylbenzene	ND	54.6	5.5	0.82	ug/kg dry	39.8	73	72-120			
Methyl Acetate	ND	54.6	5.5	1.0	ug/kg dry	61.4	112	60-140			

Benchmark Environmental & Engineering Science
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Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Volatile Organic Compounds by EPA 8260B

Matrix Spike Analyzed: 09/22/10 (Lab Number:10I1494-MS1, Batch: 10I1494)

QC Source Sample: RTI1016-01

Methyl-t-Butyl Ether (MTBE)	ND	54.6	5.5	0.54	ug/kg dry	33.1	61	63-125			M8
Methylcyclohexane	ND	54.6	5.5	0.83	ug/kg dry	45.2	83	60-140			
Methylene Chloride	7.86	54.6	5.5	2.5	ug/kg dry	52.3	81	61-127			
Styrene	ND	54.6	5.5	0.27	ug/kg dry	40.6	74	80-120			M8
Tetrachloroethene	ND	54.6	5.5	0.73	ug/kg dry	46.8	86	74-122			
Toluene	ND	54.6	5.5	0.41	ug/kg dry	48.7	89	74-128			
trans-1,2-Dichloroethene	ND	54.6	5.5	0.56	ug/kg dry	47.2	87	78-126			
trans-1,3-Dichloropropene	ND	54.6	5.5	2.4	ug/kg dry	35.5	65	73-123			M8
Trichloroethene	ND	54.6	5.5	1.2	ug/kg dry	44.7	82	77-129			
Trichlorofluoromethane	ND	54.6	5.5	0.52	ug/kg dry	62.0	114	65-146			
Vinyl chloride	ND	54.6	5.5	0.67	ug/kg dry	51.1	94	61-133			
Xylenes, total	ND	164	11	0.92	ug/kg dry	142	87	80-120			
Surrogate: 1,2-Dichloroethane-d4					ug/kg dry		86	64-126			
Surrogate: 4-Bromofluorobenzene					ug/kg dry		107	72-126			
Surrogate: Toluene-d8					ug/kg dry		115	71-125			

Matrix Spike Dup Analyzed: 09/22/10 (Lab Number:10I1494-MSD1, Batch: 10I1494)

QC Source Sample: RTI1016-01

1,1,1-Trichloroethane	ND	53.6	5.4	0.39	ug/kg dry	44.8	83	77-121	2	20	
1,1,2,2-Tetrachloroethane	ND	53.6	5.4	0.87	ug/kg dry	29.9	56	80-120	2	20	M8
1,1,2-Trichloroethane	ND	53.6	5.4	0.70	ug/kg dry	38.5	72	78-122	0.1	20	M8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	53.6	5.4	1.2	ug/kg dry	50.9	95	60-140	4	20	
1,1-Dichloroethane	ND	53.6	5.4	0.65	ug/kg dry	47.8	89	79-126	2	20	
1,1-Dichloroethene	ND	53.6	5.4	0.66	ug/kg dry	42.2	79	65-153	1	22	
1,2,4-Trichlorobenzene	ND	53.6	5.4	0.33	ug/kg dry	25.6	48	64-120	4	20	M8
1,2-Dibromo-3-chloropropane	ND	53.6	5.4	2.7	ug/kg dry	20.6	38	63-124	2	20	M8
1,2-Dibromoethane	ND	53.6	5.4	0.69	ug/kg dry	36.2	67	78-120	1	20	M8
1,2-Dichlorobenzene	ND	53.6	5.4	0.42	ug/kg dry	36.4	68	75-120	4	20	M8
1,2-Dichloroethane	ND	53.6	5.4	0.27	ug/kg dry	39.6	74	77-122	3	20	M8
1,2-Dichloropropane	ND	53.6	5.4	2.7	ug/kg dry	43.7	81	75-124	0.6	20	
1,3-Dichlorobenzene	ND	53.6	5.4	0.28	ug/kg dry	38.1	71	74-120	5	20	M8
1,4-Dichlorobenzene	ND	53.6	5.4	0.75	ug/kg dry	37.4	70	73-120	5	20	M8
2-Butanone	ND	268	27	2.0	ug/kg dry	141	53	70-134	3	20	M8
2-Hexanone	ND	268	27	2.7	ug/kg dry	151	56	59-130	5	20	M8

Benchmark Environmental & Engineering Science
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SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Matrix Spike Dup Analyzed: 09/22/10 (Lab Number:10I1494-MSD1, Batch: 10I1494)											
QC Source Sample: RTI1016-01											
4-Methyl-2-pentanone	ND	268	27	1.8	ug/kg dry	162	61	65-133	5	20	M8
Acetone	ND	268	27	4.5	ug/kg dry	146	55	61-137	2	15	M8
Benzene	ND	53.6	5.4	0.26	ug/kg dry	45.8	85	79-127	2	20	
Bromodichloromethane	ND	53.6	5.4	0.72	ug/kg dry	40.0	75	80-122	1	20	M8
Bromoform	ND	53.6	5.4	2.7	ug/kg dry	28.5	53	68-126	2	20	M8
Bromomethane	ND	53.6	5.4	0.48	ug/kg dry	80.2	150	37-149	6	20	M7
Carbon disulfide	ND	53.6	5.4	2.7	ug/kg dry	46.3	86	64-131	2	20	
Carbon Tetrachloride	ND	53.6	5.4	0.52	ug/kg dry	43.1	80	75-135	0.9	20	
Chlorobenzene	ND	53.6	5.4	0.71	ug/kg dry	45.0	84	76-124	3	25	
Dibromochloromethane	ND	53.6	5.4	0.69	ug/kg dry	36.6	68	76-125	0.6	20	M8
Chloroethane	ND	53.6	5.4	1.2	ug/kg dry	64.6	120	69-135	4	20	
Chloroform	ND	53.6	5.4	0.33	ug/kg dry	46.1	86	80-118	1	20	
Chloromethane	ND	53.6	5.4	0.32	ug/kg dry	55.1	103	63-127	3	20	
cis-1,2-Dichloroethene	ND	53.6	5.4	0.69	ug/kg dry	46.5	87	81-117	2	20	
cis-1,3-Dichloropropene	ND	53.6	5.4	0.77	ug/kg dry	36.2	68	82-120	0.5	20	M8
Cyclohexane	ND	53.6	5.4	0.75	ug/kg dry	46.4	86	70-130	2	20	
Dichlorodifluoromethane	ND	53.6	5.4	0.44	ug/kg dry	43.6	81	57-142	1	20	
Ethylbenzene	ND	53.6	5.4	0.37	ug/kg dry	45.1	84	80-120	4	20	
Isopropylbenzene	ND	53.6	5.4	0.81	ug/kg dry	38.6	72	72-120	3	20	
Methyl Acetate	ND	53.6	5.4	1.0	ug/kg dry	69.6	130	60-140	13	20	
Methyl-t-Butyl Ether (MTBE)	ND	53.6	5.4	0.53	ug/kg dry	34.2	64	63-125	3	20	
Methylcyclohexane	ND	53.6	5.4	0.82	ug/kg dry	44.0	82	60-140	3	20	
Methylene Chloride	7.86	53.6	5.4	2.5	ug/kg dry	52.8	84	61-127	0.8	15	
Styrene	ND	53.6	5.4	0.27	ug/kg dry	38.9	73	80-120	4	20	M8
Tetrachloroethene	ND	53.6	5.4	0.72	ug/kg dry	45.9	86	74-122	2	20	
Toluene	ND	53.6	5.4	0.41	ug/kg dry	47.7	89	74-128	2	20	
trans-1,2-Dichloroethene	ND	53.6	5.4	0.55	ug/kg dry	46.5	87	78-126	2	20	
trans-1,3-Dichloropropene	ND	53.6	5.4	2.4	ug/kg dry	35.3	66	73-123	0.5	20	M8
Trichloroethene	ND	53.6	5.4	1.2	ug/kg dry	43.9	82	77-129	2	24	
Trichlorofluoromethane	ND	53.6	5.4	0.51	ug/kg dry	58.7	109	65-146	6	20	
Vinyl chloride	ND	53.6	5.4	0.65	ug/kg dry	49.1	91	61-133	4	20	
Xylenes, total	ND	161	11	0.90	ug/kg dry	137	85	80-120	3	20	

Surrogate:	ug/kg dry	86	64-126
1,2-Dichloroethane-d4			
Surrogate:	ug/kg dry	109	72-126
4-Bromofluorobenzene			
Surrogate: Toluene-d8	ug/kg dry	114	71-125

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
Blank Analyzed: 09/22/10 (Lab Number:10I1091-BLK1, Batch: 10I1091)											
2,4,5-Trichlorophenol			170	36	ug/kg wet	ND					
2,4,6-Trichlorophenol			170	11	ug/kg wet	ND					
2,4-Dichlorophenol			170	8.7	ug/kg wet	ND					
2,4-Dimethylphenol			170	45	ug/kg wet	ND					
2,4-Dinitrophenol			320	58	ug/kg wet	ND					
2,4-Dinitrotoluene			170	26	ug/kg wet	ND					
2,6-Dinitrotoluene			170	41	ug/kg wet	ND					
2-Chloronaphthalene			170	11	ug/kg wet	ND					
2-Chlorophenol			170	8.5	ug/kg wet	ND					
2-Methylnaphthalene			170	2.0	ug/kg wet	ND					
2-Methylphenol			170	5.1	ug/kg wet	ND					
2-Nitroaniline			320	53	ug/kg wet	ND					
2-Nitrophenol			170	7.6	ug/kg wet	ND					
3,3'-Dichlorobenzidine			170	150	ug/kg wet	ND					
3-Nitroaniline			320	38	ug/kg wet	ND					
4,6-Dinitro-2-methylphenol			320	57	ug/kg wet	ND					
4-Bromophenyl phenyl ether			170	53	ug/kg wet	ND					
4-Chloro-3-methylphenol			170	6.8	ug/kg wet	ND					
4-Chloroaniline			170	49	ug/kg wet	ND					
4-Chlorophenyl phenyl ether			170	3.5	ug/kg wet	ND					
4-Methylphenol			170	9.2	ug/kg wet	ND					
4-Nitroaniline			320	19	ug/kg wet	ND					
4-Nitrophenol			320	40	ug/kg wet	ND					
Acenaphthene			170	2.0	ug/kg wet	ND					
Acenaphthylene			170	1.4	ug/kg wet	ND					
Acetophenone			170	8.5	ug/kg wet	ND					
Anthracene			170	4.3	ug/kg wet	ND					
Atrazine			170	7.4	ug/kg wet	ND					
Benzaldehyde			170	18	ug/kg wet	ND					
Benzo(a)anthracene			170	2.9	ug/kg wet	ND					
Benzo(a)pyrene			170	4.0	ug/kg wet	ND					
Benzo(b)fluoranthene			170	3.2	ug/kg wet	ND					
Benzo(ghi)perylene			170	2.0	ug/kg wet	ND					
Benzo(k)fluoranthene			170	1.8	ug/kg wet	ND					
Biphenyl			170	10	ug/kg wet	ND					

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatile Organics by GC/MS</u>											
Blank Analyzed: 09/22/10 (Lab Number:10I1091-BLK1, Batch: 10I1091)											
Bis(2-chloroethoxy)methane			170	9.0	ug/kg wet	ND					
Bis(2-chloroethyl)ether			170	14	ug/kg wet	ND					
2,2'-Oxybis(1-Chloropropane)			170	17	ug/kg wet	ND					
Bis(2-ethylhexyl)phthalate			170	54	ug/kg wet	ND					
Butyl benzyl phthalate			170	45	ug/kg wet	ND					
Caprolactam			170	72	ug/kg wet	ND					
Carbazole			170	1.9	ug/kg wet	ND					
Chrysene			170	1.7	ug/kg wet	ND					
Dibenzo(a,h)anthracene			170	2.0	ug/kg wet	ND					
Dibenzofuran			170	1.7	ug/kg wet	ND					
Diethyl phthalate			170	5.0	ug/kg wet	ND					
Dimethyl phthalate			170	4.3	ug/kg wet	ND					
Di-n-butyl phthalate			170	57	ug/kg wet	ND					
Di-n-octyl phthalate			170	3.9	ug/kg wet	ND					
Fluoranthene			170	2.4	ug/kg wet	ND					
Fluorene			170	3.8	ug/kg wet	ND					
Hexachlorobenzene			170	8.3	ug/kg wet	ND					
Hexachlorobutadiene			170	8.5	ug/kg wet	ND					
Hexachlorocyclopentadiene			170	50	ug/kg wet	ND					
Hexachloroethane			170	13	ug/kg wet	ND					
Indeno(1,2,3-cd)pyrene			170	4.6	ug/kg wet	ND					
Isophorone			170	8.3	ug/kg wet	ND					
Naphthalene			170	2.8	ug/kg wet	ND					
Nitrobenzene			170	7.4	ug/kg wet	ND					
N-Nitrosodi-n-propylamine			170	13	ug/kg wet	ND					
N-Nitrosodiphenylamine			170	9.1	ug/kg wet	ND					
Pentachlorophenol			320	57	ug/kg wet	ND					
Phenanthrene			170	3.5	ug/kg wet	ND					
Phenol			170	17	ug/kg wet	ND					
Pyrene			170	1.1	ug/kg wet	ND					
Surrogate: 2,4,6-Tribromophenol					ug/kg wet		110	39-146			
Surrogate: 2-Fluorobiphenyl					ug/kg wet		89	37-120			
Surrogate: 2-Fluorophenol					ug/kg wet		78	18-120			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
Blank Analyzed: 09/22/10 (Lab Number:1011091-BLK1, Batch: 1011091)											
Surrogate:					ug/kg wet		89	34-132			
Nitrobenzene-d5											
Surrogate: Phenol-d5					ug/kg wet		82	11-120			
Surrogate:					ug/kg wet		77	58-147			
p-Terphenyl-d14											
LCS Analyzed: 09/22/10 (Lab Number:1011091-BS1, Batch: 1011091)											
2,4,5-Trichlorophenol			170	37	ug/kg wet	ND		59-126			
2,4,6-Trichlorophenol			170	11	ug/kg wet	ND		59-123			
2,4-Dichlorophenol			170	8.8	ug/kg wet	ND		52-120			
2,4-Dimethylphenol			170	45	ug/kg wet	ND		36-120			
2,4-Dinitrophenol			330	59	ug/kg wet	ND		35-146			
2,4-Dinitrotoluene		3310	170	26	ug/kg wet	3290	99	55-125			
2,6-Dinitrotoluene			170	41	ug/kg wet	ND		66-128			
2-Chloronaphthalene			170	11	ug/kg wet	ND		57-120			
2-Chlorophenol		3310	170	8.5	ug/kg wet	2620	79	38-120			
2-Methylnaphthalene			170	2.0	ug/kg wet	ND		47-120			
2-Methylphenol			170	5.2	ug/kg wet	ND		48-120			
2-Nitroaniline			330	54	ug/kg wet	ND		61-130			
2-Nitrophenol			170	7.7	ug/kg wet	ND		50-120			
3,3'-Dichlorobenzidine			170	150	ug/kg wet	ND		48-126			
3-Nitroaniline			330	39	ug/kg wet	ND		61-127			
4,6-Dinitro-2-methylphenol			330	58	ug/kg wet	ND		49-155			
4-Bromophenyl phenyl ether			170	53	ug/kg wet	ND		58-131			
4-Chloro-3-methylphenol		3310	170	6.9	ug/kg wet	2980	90	49-125			
4-Chloroaniline			170	49	ug/kg wet	ND		49-120			
4-Chlorophenyl phenyl ether			170	3.6	ug/kg wet	ND		63-124			
4-Methylphenol			170	9.3	ug/kg wet	ND		50-119			
4-Nitroaniline			330	19	ug/kg wet	ND		63-128			
4-Nitrophenol		3310	330	41	ug/kg wet	2710	82	43-137			
Acenaphthene		3310	170	2.0	ug/kg wet	2920	88	53-120			
Acenaphthylene			170	1.4	ug/kg wet	ND		58-121			
Acetophenone			170	8.6	ug/kg wet	ND		66-120			
Anthracene			170	4.3	ug/kg wet	ND		62-129			
Atrazine			170	7.5	ug/kg wet	ND		73-133			
Benzaldehyde			170	18	ug/kg wet	ND		21-120			
Benzo(a)anthracene			170	2.9	ug/kg wet	ND		65-133			
Benzo(a)pyrene			170	4.0	ug/kg wet	ND		64-127			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
LCS Analyzed: 09/22/10 (Lab Number:10I1091-BS1, Batch: 10I1091)											
Benzo(b)fluoranthene			170	3.3	ug/kg wet	ND		64-135			
Benzo(ghi)perylene			170	2.0	ug/kg wet	ND		50-152			
Benzo(k)fluoranthene			170	1.8	ug/kg wet	ND		58-138			
Biphenyl			170	10	ug/kg wet	ND		71-120			
Bis(2-chloroethoxy)methane			170	9.1	ug/kg wet	ND		61-133			
Bis(2-chloroethyl)ether			170	14	ug/kg wet	ND		45-120			
2,2'-Oxybis(1-Chloropropane)			170	18	ug/kg wet	ND		44-120			
Bis(2-ethylhexyl)phthalate		3310	170	54	ug/kg wet	3650	110	61-133			
Butyl benzyl phthalate			170	45	ug/kg wet	ND		61-129			
Caprolactam			170	73	ug/kg wet	ND		54-133			
Carbazole			170	1.9	ug/kg wet	ND		59-129			
Chrysene			170	1.7	ug/kg wet	ND		64-131			
Dibenzo(a,h)anthracene			170	2.0	ug/kg wet	ND		54-148			
Dibenzofuran			170	1.7	ug/kg wet	ND		56-120			
Diethyl phthalate			170	5.1	ug/kg wet	ND		66-126			
Dimethyl phthalate			170	4.4	ug/kg wet	ND		65-124			
Di-n-butyl phthalate			170	58	ug/kg wet	ND		58-130			
Di-n-octyl phthalate			170	3.9	ug/kg wet	ND		62-133			
Fluoranthene			170	2.4	ug/kg wet	ND		62-131			
Fluorene		3310	170	3.9	ug/kg wet	3170	96	63-126			
Hexachlorobenzene			170	8.3	ug/kg wet	ND		60-132			
Hexachlorobutadiene			170	8.6	ug/kg wet	ND		45-120			
Hexachlorocyclopentadiene			170	51	ug/kg wet	ND		31-120			
Hexachloroethane		3310	170	13	ug/kg wet	2320	70	41-120			
Indeno(1,2,3-cd)pyrene			170	4.6	ug/kg wet	ND		56-149			
Isophorone			170	8.4	ug/kg wet	ND		56-120			
Naphthalene			170	2.8	ug/kg wet	ND		46-120			
Nitrobenzene			170	7.4	ug/kg wet	ND		49-120			
N-Nitrosodi-n-propylamine		3310	170	13	ug/kg wet	2960	89	46-120			
N-Nitrosodiphenylamine			170	9.2	ug/kg wet	ND		20-119			
Pentachlorophenol		3310	330	57	ug/kg wet	3360	102	33-136			
Phenanthrene			170	3.5	ug/kg wet	ND		60-130			
Phenol		3310	170	18	ug/kg wet	2390	72	36-120			
Pyrene		3310	170	1.1	ug/kg wet	3220	97	51-133			

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2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RT10959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
LCS Analyzed: 09/22/10 (Lab Number:10I1091-BS1, Batch: 10I1091)											
Surrogate:					ug/kg wet		107	39-146			
2,4,6-Tribromophenol											
Surrogate:					ug/kg wet		86	37-120			
2-Fluorobiphenyl											
Surrogate:					ug/kg wet		71	18-120			
2-Fluorophenol											
Surrogate:					ug/kg wet		84	34-132			
Nitrobenzene-d5											
Surrogate: Phenol-d5					ug/kg wet		76	11-120			
Surrogate:					ug/kg wet		85	58-147			
p-Terphenyl-d14											
Matrix Spike Analyzed: 09/22/10 (Lab Number:10I1091-MS1, Batch: 10I1091)											
QC Source Sample: RT11016-01											
2,4,5-Trichlorophenol	ND		180	40	ug/kg dry	ND		59-126			
2,4,6-Trichlorophenol	ND		180	12	ug/kg dry	ND		59-123			
2,4-Dichlorophenol	ND		180	9.5	ug/kg dry	ND		52-120			
2,4-Dimethylphenol	ND		180	49	ug/kg dry	ND		36-120			
2,4-Dinitrophenol	ND		360	64	ug/kg dry	ND		35-146			
2,4-Dinitrotoluene	ND	3590	180	28	ug/kg dry	3780	105	55-125			
2,6-Dinitrotoluene	ND		180	44	ug/kg dry	ND		66-128			
2-Chloronaphthalene	ND		180	12	ug/kg dry	ND		57-120			
2-Chlorophenol	ND	3590	180	9.2	ug/kg dry	3110	87	38-120			
2-Methylnaphthalene	ND		180	2.2	ug/kg dry	ND		47-120			
2-Methylphenol	ND		180	5.6	ug/kg dry	ND		48-120			
2-Nitroaniline	ND		360	58	ug/kg dry	ND		61-130			
2-Nitrophenol	ND		180	8.3	ug/kg dry	ND		50-120			
3,3'-Dichlorobenzidine	ND		180	160	ug/kg dry	ND		48-126			
3-Nitroaniline	ND		360	42	ug/kg dry	ND		61-127			
4,6-Dinitro-2-methylphenol	ND		360	63	ug/kg dry	ND		49-155			
4-Bromophenyl phenyl ether	ND		180	58	ug/kg dry	ND		58-131			
4-Chloro-3-methylphenol	ND	3590	180	7.5	ug/kg dry	3490	97	49-125			
4-Chloroaniline	ND		180	53	ug/kg dry	ND		49-120			
4-Chlorophenyl phenyl ether	ND		180	3.9	ug/kg dry	ND		63-124			
4-Methylphenol	ND		180	10	ug/kg dry	ND		50-119			
4-Nitroaniline	ND		360	20	ug/kg dry	ND		63-128			
4-Nitrophenol	ND	3590	360	44	ug/kg dry	3210	89	43-137			
Acenaphthene	ND	3590	180	2.1	ug/kg dry	3300	92	53-120			
Acenaphthylene	ND		180	1.5	ug/kg dry	ND		58-121			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
Matrix Spike Analyzed: 09/22/10 (Lab Number:10I1091-MS1, Batch: 10I1091)											
QC Source Sample: RT11016-01											
Acetophenone	ND		180	9.3	ug/kg dry	ND		66-120			
Anthracene	ND		180	4.7	ug/kg dry	ND		62-129			
Atrazine	ND		180	8.1	ug/kg dry	ND		73-133			
Benzaldehyde	ND		180	20	ug/kg dry	ND		21-120			
Benzo(a)anthracene	ND		180	3.1	ug/kg dry	ND		65-133			
Benzo(a)pyrene	ND		180	4.4	ug/kg dry	ND		64-127			
Benzo(b)fluoranthene	ND		180	3.5	ug/kg dry	ND		64-135			
Benzo(ghi)perylene	ND		180	2.2	ug/kg dry	ND		50-152			
Benzo(k)fluoranthene	ND		180	2.0	ug/kg dry	ND		58-138			
Biphenyl	ND		180	11	ug/kg dry	ND		71-120			
Bis(2-chloroethoxy)methane	ND		180	9.9	ug/kg dry	ND		61-133			
Bis(2-chloroethyl)ether	ND		180	16	ug/kg dry	ND		45-120			
2,2'-Oxybis(1-Chloropropane)	ND		180	19	ug/kg dry	ND		44-120			
Bis(2-ethylhexyl)phthalate	ND	3590	180	59	ug/kg dry	4250	118	61-133			
Butyl benzyl phthalate	ND		180	49	ug/kg dry	ND		61-129			
Caprolactam	ND		180	79	ug/kg dry	ND		54-133			
Carbazole	ND		180	2.1	ug/kg dry	ND		59-129			
Chrysene	ND		180	1.8	ug/kg dry	ND		64-131			
Dibenzo(a,h)anthracene	ND		180	2.1	ug/kg dry	ND		54-148			
Dibenzofuran	ND		180	1.9	ug/kg dry	ND		56-120			
Diethyl phthalate	ND		180	5.5	ug/kg dry	ND		66-126			
Dimethyl phthalate	ND		180	4.7	ug/kg dry	ND		65-124			
Di-n-butyl phthalate	ND		180	63	ug/kg dry	ND		58-130			
Di-n-octyl phthalate	ND		180	4.2	ug/kg dry	ND		62-133			
Fluoranthene	ND		180	2.6	ug/kg dry	53.1		62-131			J
Fluorene	ND	3590	180	4.2	ug/kg dry	3560	99	63-126			
Hexachlorobenzene	ND		180	9.0	ug/kg dry	ND		60-132			
Hexachlorobutadiene	ND		180	9.3	ug/kg dry	ND		45-120			
Hexachlorocyclopentadiene	ND		180	55	ug/kg dry	ND		31-120			
Hexachloroethane	ND	3590	180	14	ug/kg dry	2830	79	41-120			
Indeno(1,2,3-cd)pyrene	ND		180	5.0	ug/kg dry	ND		56-149			
Isophorone	ND		180	9.1	ug/kg dry	ND		56-120			
Naphthalene	ND		180	3.0	ug/kg dry	ND		46-120			
Nitrobenzene	ND		180	8.1	ug/kg dry	ND		49-120			

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Semivolatile Organics by GC/MS

Matrix Spike Analyzed: 09/22/10 (Lab Number:1011091-MS1, Batch: 1011091)

QC Source Sample: RT11016-01

N-Nitrosodi-n-propylamine	ND	3590	180	14	ug/kg dry	3500	98	46-120			
N-Nitrosodiphenylamine	ND		180	9.9	ug/kg dry	ND		20-119			
Pentachlorophenol	ND	3590	360	62	ug/kg dry	3760	105	33-136			
Phenanthrene	ND		180	3.8	ug/kg dry	ND		60-130			
Phenol	ND	3590	180	19	ug/kg dry	2770	77	36-120			
Pyrene	ND	3590	180	1.2	ug/kg dry	3660	102	51-133			

Surrogate:					ug/kg dry		117	39-146			
2,4,6-Tribromophenol					ug/kg dry		91	37-120			
Surrogate:					ug/kg dry		79	18-120			
2-Fluorobiphenyl					ug/kg dry		93	34-132			
Surrogate:					ug/kg dry		82	11-120			
2-Fluorophenol					ug/kg dry		91	58-147			
Surrogate:					ug/kg dry						
Nitrobenzene-d5					ug/kg dry						
Surrogate: Phenol-d5					ug/kg dry						
Surrogate:					ug/kg dry						
p-Terphenyl-d14					ug/kg dry						

Matrix Spike Dup Analyzed: 09/22/10 (Lab Number:1011091-MSD1, Batch: 1011091)

QC Source Sample: RT11016-01

2,4,5-Trichlorophenol	ND		190	41	ug/kg dry	ND		59-126		18	
2,4,6-Trichlorophenol	ND		190	12	ug/kg dry	ND		59-123		19	
2,4-Dichlorophenol	ND		190	9.7	ug/kg dry	ND		52-120		19	
2,4-Dimethylphenol	ND		190	50	ug/kg dry	ND		36-120		42	
2,4-Dinitrophenol	ND		360	65	ug/kg dry	ND		35-146		22	
2,4-Dinitrotoluene	ND	3670	190	29	ug/kg dry	3390	92	55-125	11	20	
2,6-Dinitrotoluene	ND		190	46	ug/kg dry	ND		66-128		15	
2-Chloronaphthalene	ND		190	12	ug/kg dry	ND		57-120		21	
2-Chlorophenol	ND	3670	190	9.5	ug/kg dry	2470	67	38-120	23	25	
2-Methylnaphthalene	ND		190	2.3	ug/kg dry	ND		47-120		21	
2-Methylphenol	ND		190	5.7	ug/kg dry	ND		48-120		27	
2-Nitroaniline	ND		360	60	ug/kg dry	ND		61-130		15	
2-Nitrophenol	ND		190	8.5	ug/kg dry	ND		50-120		18	
3,3'-Dichlorobenzidine	ND		190	160	ug/kg dry	ND		48-126		25	
3-Nitroaniline	ND		360	43	ug/kg dry	ND		61-127		19	
4,6-Dinitro-2-methylphenol	ND		360	64	ug/kg dry	ND		49-155		15	
4-Bromophenyl phenyl ether	ND		190	59	ug/kg dry	ND		58-131		15	
4-Chloro-3-methylphenol	ND	3670	190	7.7	ug/kg dry	3120	85	49-125	11	27	

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
Matrix Spike Dup Analyzed: 09/22/10 (Lab Number:10I1091-MSD1, Batch: 10I1091)											
QC Source Sample: RTI1016-01											
4-Chloroaniline	ND		190	55	ug/kg dry	ND		49-120		22	
4-Chlorophenyl phenyl ether	ND		190	4.0	ug/kg dry	ND		63-124		16	
4-Methylphenol	ND		190	10	ug/kg dry	ND		50-119		24	
4-Nitroaniline	ND		360	21	ug/kg dry	ND		63-128		24	
4-Nitrophenol	ND	3670	360	45	ug/kg dry	2900	79	43-137	10	25	
Acenaphthene	ND	3670	190	2.2	ug/kg dry	3060	83	53-120	7	35	
Acenaphthylene	ND		190	1.5	ug/kg dry	ND		58-121		18	
Acetophenone	ND		190	9.5	ug/kg dry	ND		66-120		20	
Anthracene	ND		190	4.8	ug/kg dry	ND		62-129		15	
Atrazine	ND		190	8.3	ug/kg dry	ND		73-133		20	
Benzaldehyde	ND		190	20	ug/kg dry	ND		21-120		20	
Benzo(a)anthracene	ND		190	3.2	ug/kg dry	ND		65-133		15	
Benzo(a)pyrene	ND		190	4.5	ug/kg dry	ND		64-127		15	
Benzo(b)fluoranthene	ND		190	3.6	ug/kg dry	ND		64-135		15	
Benzo(ghi)perylene	ND		190	2.2	ug/kg dry	ND		50-152		15	
Benzo(k)fluoranthene	ND		190	2.0	ug/kg dry	ND		58-138		22	
Biphenyl	ND		190	12	ug/kg dry	ND		71-120		20	
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	ND		61-133		17	
Bis(2-chloroethyl)ether	ND		190	16	ug/kg dry	ND		45-120		21	
2,2'-Oxybis(1-Chloropropane)	ND		190	19	ug/kg dry	ND		44-120		24	
Bis(2-ethylhexyl)phthalate	ND	3670	190	60	ug/kg dry	3890	106	61-133	9	15	
Butyl benzyl phthalate	ND		190	50	ug/kg dry	ND		61-129		16	
Caprolactam	ND		190	80	ug/kg dry	ND		54-133		20	
Carbazole	ND		190	2.2	ug/kg dry	ND		59-129		20	
Chrysene	ND		190	1.9	ug/kg dry	ND		64-131		15	
Dibenzo(a,h)anthracene	ND		190	2.2	ug/kg dry	ND		54-148		15	
Dibenzofuran	ND		190	1.9	ug/kg dry	ND		56-120		15	
Diethyl phthalate	ND		190	5.6	ug/kg dry	ND		66-126		15	
Dimethyl phthalate	ND		190	4.9	ug/kg dry	ND		65-124		15	
Di-n-butyl phthalate	ND		190	64	ug/kg dry	ND		58-130		15	
Di-n-octyl phthalate	ND		190	4.3	ug/kg dry	ND		62-133		16	
Fluoranthene	ND		190	2.7	ug/kg dry	49.2		62-131	8	15	J
Fluorene	ND	3670	190	4.3	ug/kg dry	3290	90	63-126	8	15	
Hexachlorobenzene	ND		190	9.2	ug/kg dry	ND		60-132		15	
Hexachlorobutadiene	ND		190	9.5	ug/kg dry	ND		45-120		44	

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
Matrix Spike Dup Analyzed: 09/22/10 (Lab Number:1011091-MSD1, Batch: 1011091)											
QC Source Sample: RT11016-01											
Hexachlorocyclopentadiene	ND		190	56	ug/kg dry	ND		31-120		49	
Hexachloroethane	ND	3670	190	14	ug/kg dry	2300	63	41-120	21	46	
Indeno(1,2,3-cd)pyrene	ND		190	5.1	ug/kg dry	ND		56-149		15	
Isophorone	ND		190	9.3	ug/kg dry	ND		56-120		17	
Naphthalene	ND		190	3.1	ug/kg dry	ND		46-120		29	
Nitrobenzene	ND		190	8.2	ug/kg dry	ND		49-120		24	
N-Nitrosodi-n-propylamine	ND	3670	190	15	ug/kg dry	3020	82	46-120	15	31	
N-Nitrosodiphenylamine	ND		190	10	ug/kg dry	ND		20-119		15	
Pentachlorophenol	ND	3670	360	64	ug/kg dry	3400	93	33-136	10	35	
Phenanthrene	ND		190	3.9	ug/kg dry	ND		60-130		15	
Phenol	ND	3670	190	20	ug/kg dry	2340	64	36-120	17	35	
Pyrene	ND	3670	190	1.2	ug/kg dry	3400	93	51-133	7	35	
<i>Surrogate:</i>					<i>ug/kg dry</i>		<i>99</i>	<i>39-146</i>			
<i>2,4,6-Tribromophenol</i>					<i>ug/kg dry</i>		<i>78</i>	<i>37-120</i>			
<i>Surrogate:</i>					<i>ug/kg dry</i>		<i>60</i>	<i>18-120</i>			
<i>2-Fluorobiphenyl</i>					<i>ug/kg dry</i>		<i>71</i>	<i>34-132</i>			
<i>Surrogate:</i>					<i>ug/kg dry</i>		<i>66</i>	<i>11-120</i>			
<i>2-Fluorophenol</i>					<i>ug/kg dry</i>		<i>81</i>	<i>58-147</i>			
<i>Surrogate:</i>					<i>ug/kg dry</i>						
<i>Nitrobenzene-d5</i>					<i>ug/kg dry</i>						
<i>Surrogate: Phenol-d5</i>					<i>ug/kg dry</i>						
<i>Surrogate:</i>					<i>ug/kg dry</i>						
<i>p-Terphenyl-d14</i>					<i>ug/kg dry</i>						

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Organochlorine Pesticides by EPA Method 8081A</u>											
Blank Analyzed: 09/18/10 (Lab Number:10I1075-BLK1, Batch: 10I1075)											
4,4'-DDD			1.6	0.32	ug/kg wet	ND					QSU
4,4'-DDD [2C]			1.6	0.32	ug/kg wet	ND					QSU
4,4'-DDE			1.6	0.25	ug/kg wet	ND					QSU
4,4'-DDE [2C]			1.6	0.25	ug/kg wet	ND					QSU
4,4'-DDT			1.6	0.17	ug/kg wet	ND					QSU
4,4'-DDT [2C]			1.6	0.17	ug/kg wet	ND					QSU
Aldrin			1.6	0.40	ug/kg wet	ND					QSU
Aldrin [2C]			1.6	0.40	ug/kg wet	ND					QSU
alpha-BHC			1.6	0.30	ug/kg wet	ND					QSU
alpha-BHC [2C]			1.6	0.30	ug/kg wet	ND					QSU
beta-BHC			1.6	0.18	ug/kg wet	ND					QSU
beta-BHC [2C]			1.6	0.18	ug/kg wet	ND					QSU
Chlordane			16	3.6	ug/kg wet	ND					QSU
Chlordane [2C]			16	3.6	ug/kg wet	ND					QSU
delta-BHC			1.6	0.22	ug/kg wet	ND					QSU
delta-BHC [2C]			1.6	0.22	ug/kg wet	ND					QSU
Dieldrin			1.6	0.39	ug/kg wet	ND					QSU
Dieldrin [2C]			1.6	0.39	ug/kg wet	ND					QSU
Endosulfan I			1.6	0.21	ug/kg wet	ND					QSU
Endosulfan I [2C]			1.6	0.21	ug/kg wet	ND					QSU
Endosulfan II			1.6	0.30	ug/kg wet	ND					QSU
Endosulfan II [2C]			1.6	0.30	ug/kg wet	ND					QSU
Endosulfan sulfate			1.6	0.31	ug/kg wet	ND					QSU
Endosulfan sulfate [2C]			1.6	0.31	ug/kg wet	ND					QSU
Endrin			1.6	0.23	ug/kg wet	ND					QSU
Endrin [2C]			1.6	0.23	ug/kg wet	ND					QSU
Endrin aldehyde			1.6	0.42	ug/kg wet	ND					QSU
Endrin aldehyde [2C]			1.6	0.42	ug/kg wet	ND					QSU
gamma-BHC (Lindane)			1.6	0.29	ug/kg wet	ND					QSU
gamma-BHC (Lindane) [2C]			1.6	0.29	ug/kg wet	ND					QSU
Heptachlor			1.6	0.26	ug/kg wet	ND					QSU
Heptachlor [2C]			1.6	0.26	ug/kg wet	ND					QSU
Heptachlor epoxide			1.6	0.42	ug/kg wet	ND					QSU
Heptachlor epoxide [2C]			1.6	0.42	ug/kg wet	ND					QSU
Methoxychlor			1.6	0.23	ug/kg wet	ND					QSU
Methoxychlor [2C]			1.6	0.23	ug/kg wet	ND					QSU
Toxaphene			16	9.6	ug/kg wet	ND					QSU

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Organochlorine Pesticides by EPA Method 8081A</u>											
Blank Analyzed: 09/18/10 (Lab Number:10I1075-BLK1, Batch: 10I1075)											
Toxaphene [2C]			16	9.6	ug/kg wet	ND					QSU
Surrogate:					ug/kg wet		116	42-146			QSU,C8
Decachlorobiphenyl					ug/kg wet		90	42-146			QSU
Surrogate:					ug/kg wet		70	37-136			QSU
Decachlorobiphenyl [2C]					ug/kg wet		79	37-136			QSU
Surrogate:					ug/kg wet						QSU
Tetrachloro-m-xylene					ug/kg wet						QSU
Surrogate:					ug/kg wet						QSU
Tetrachloro-m-xylene					ug/kg wet						QSU
LCS Analyzed: 09/20/10 (Lab Number:10I1075-BS1, Batch: 10I1075)											
4,4'-DDD		16.6	1.7	0.32	ug/kg wet	13.9	84	55-129			QSU
4,4'-DDD [2C]		16.6	1.7	0.32	ug/kg wet	14.5	87	55-129			QSU
4,4'-DDE		16.6	1.7	0.25	ug/kg wet	13.6	82	59-120			QSU
4,4'-DDE [2C]		16.6	1.7	0.25	ug/kg wet	14.4	87	59-120			QSU
4,4'-DDT		16.6	1.7	0.17	ug/kg wet	14.0	84	47-145			QSU
4,4'-DDT [2C]		16.6	1.7	0.17	ug/kg wet	13.6	82	47-145			QSU
Aldrin		16.6	1.7	0.41	ug/kg wet	10.7	64	35-120			QSU
Aldrin [2C]		16.6	1.7	0.41	ug/kg wet	11.7	70	35-120			QSU
alpha-BHC		16.6	1.7	0.30	ug/kg wet	10.9	66	49-120			QSU
alpha-BHC [2C]		16.6	1.7	0.30	ug/kg wet	12.2	73	49-120			QSU
beta-BHC		16.6	1.7	0.18	ug/kg wet	12.7	76	56-120			QSU
beta-BHC [2C]		16.6	1.7	0.18	ug/kg wet	13.5	81	56-120			QSU
delta-BHC		16.6	1.7	0.22	ug/kg wet	12.4	74	45-123			QSU
delta-BHC [2C]		16.6	1.7	0.22	ug/kg wet	13.2	79	45-123			QSU
Dieldrin		16.6	1.7	0.40	ug/kg wet	13.4	80	57-120			QSU
Dieldrin [2C]		16.6	1.7	0.40	ug/kg wet	14.0	84	57-120			QSU
Endosulfan I		16.6	1.7	0.21	ug/kg wet	11.6	69	29-125			QSU
Endosulfan I [2C]		16.6	1.7	0.21	ug/kg wet	12.2	73	29-125			QSU
Endosulfan II		16.6	1.7	0.30	ug/kg wet	12.7	76	39-121			QSU
Endosulfan II [2C]		16.6	1.7	0.30	ug/kg wet	12.5	75	39-121			QSU
Endosulfan sulfate		16.6	1.7	0.31	ug/kg wet	12.8	77	43-120			QSU
Endosulfan sulfate [2C]		16.6	1.7	0.31	ug/kg wet	12.6	76	43-120			QSU
Endrin		16.6	1.7	0.23	ug/kg wet	13.1	79	54-127			QSU
Endrin [2C]		16.6	1.7	0.23	ug/kg wet	13.4	81	54-127			QSU
Endrin aldehyde		16.6	1.7	0.43	ug/kg wet	11.1	67	33-120			QSU
Endrin aldehyde [2C]		16.6	1.7	0.43	ug/kg wet	11.2	67	33-120			QSU
gamma-BHC (Lindane)		16.6	1.7	0.29	ug/kg wet	12.2	73	50-120			QSU
gamma-BHC (Lindane) [2C]		16.6	1.7	0.29	ug/kg wet	13.0	78	50-120			QSU

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SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Organochlorine Pesticides by EPA Method 8081A

LCS Analyzed: 09/20/10 (Lab Number:10I1075-BS1, Batch: 10I1075)

Heptachlor		16.6	1.7	0.26	ug/kg wet	11.6	70	47-120			QSU
Heptachlor [2C]		16.6	1.7	0.26	ug/kg wet	12.6	76	47-120			QSU
Heptachlor epoxide		16.6	1.7	0.43	ug/kg wet	13.0	78	44-122			QSU
Heptachlor epoxide [2C]		16.6	1.7	0.43	ug/kg wet	13.4	80	44-122			QSU
Methoxychlor		16.6	1.7	0.23	ug/kg wet	14.0	84	46-152			QSU
Methoxychlor [2C]		16.6	1.7	0.23	ug/kg wet	14.2	85	46-152			QSU

Surrogate:					ug/kg wet		94	42-146			QSU,C8
Decachlorobiphenyl											
Surrogate:					ug/kg wet		91	42-146			QSU
Decachlorobiphenyl [2C]											
Surrogate:					ug/kg wet		70	37-136			QSU
Tetrachloro-m-xylene											
Surrogate:					ug/kg wet		83	37-136			QSU
Tetrachloro-m-xylene											

Matrix Spike Analyzed: 09/18/10 (Lab Number:10I1075-MS1, Batch: 10I1075)

QC Source Sample: RTI0959-01

4,4'-DDD	ND	20.8	2.1	0.40	ug/kg dry	18.6	90	55-129			
4,4'-DDD [2C]	ND	20.8	2.1	0.40	ug/kg dry	18.7	90	55-129			
4,4'-DDE	3.79	20.8	2.1	0.31	ug/kg dry	18.6	71	59-120			
4,4'-DDE [2C]	4.09	20.8	2.1	0.31	ug/kg dry	19.1	72	59-120			
4,4'-DDT	3.82	20.8	2.1	0.21	ug/kg dry	19.0	73	47-145			
4,4'-DDT [2C]	4.00	20.8	2.1	0.21	ug/kg dry	18.3	69	47-145			
Aldrin	ND	20.8	2.1	0.51	ug/kg dry	15.5	75	35-120			
Aldrin [2C]	ND	20.8	2.1	0.51	ug/kg dry	16.1	78	35-120			
alpha-BHC	ND	20.8	2.1	0.37	ug/kg dry	16.5	80	49-120			
alpha-BHC [2C]	ND	20.8	2.1	0.37	ug/kg dry	16.9	82	49-120			
beta-BHC	ND	20.8	2.1	0.22	ug/kg dry	17.7	85	56-120			
beta-BHC [2C]	ND	20.8	2.1	0.22	ug/kg dry	18.0	87	56-120			
delta-BHC	ND	20.8	2.1	0.27	ug/kg dry	17.4	84	45-123			
delta-BHC [2C]	ND	20.8	2.1	0.27	ug/kg dry	17.7	85	45-123			
Dieldrin	ND	20.8	2.1	0.50	ug/kg dry	18.1	87	57-120			
Dieldrin [2C]	ND	20.8	2.1	0.50	ug/kg dry	18.1	87	57-120			
Endosulfan I	ND	20.8	2.1	0.26	ug/kg dry	15.7	76	29-125			
Endosulfan I [2C]	ND	20.8	2.1	0.26	ug/kg dry	15.8	76	29-125			
Endosulfan II	ND	20.8	2.1	0.37	ug/kg dry	17.2	83	39-121			
Endosulfan II [2C]	ND	20.8	2.1	0.37	ug/kg dry	16.8	81	39-121			
Endosulfan sulfate	ND	20.8	2.1	0.39	ug/kg dry	20.2	97	43-120			
Endosulfan sulfate [2C]	ND	20.8	2.1	0.39	ug/kg dry	18.7	90	43-120			
Endrin	ND	20.8	2.1	0.29	ug/kg dry	18.0	87	54-127			

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SDG Number: RT10959

Project: Benchmark - 295 Maryland St. site
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Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Organochlorine Pesticides by EPA Method 8081A

Matrix Spike Analyzed: 09/18/10 (Lab Number:10I1075-MS1, Batch: 10I1075)

QC Source Sample: RT10959-01

Endrin [2C]	ND	20.8	2.1	0.29	ug/kg dry	17.9	86	54-127			
Endrin aldehyde	ND	20.8	2.1	0.53	ug/kg dry	19.1	92	33-120			
Endrin aldehyde [2C]	ND	20.8	2.1	0.53	ug/kg dry	18.9	91	33-120			
gamma-BHC (Lindane)	ND	20.8	2.1	0.36	ug/kg dry	17.5	85	50-120			
gamma-BHC (Lindane) [2C]	ND	20.8	2.1	0.36	ug/kg dry	18.0	87	50-120			
Heptachlor	ND	20.8	2.1	0.32	ug/kg dry	16.9	81	47-120			
Heptachlor [2C]	ND	20.8	2.1	0.32	ug/kg dry	17.0	82	47-120			
Heptachlor epoxide	ND	20.8	2.1	0.54	ug/kg dry	18.0	87	44-122			
Heptachlor epoxide [2C]	ND	20.8	2.1	0.54	ug/kg dry	17.7	85	44-122			
Methoxychlor	ND	20.8	2.1	0.29	ug/kg dry	19.3	93	46-152			
Methoxychlor [2C]	ND	20.8	2.1	0.29	ug/kg dry	19.5	94	46-152			

Surrogate:					ug/kg dry		97	42-146			
Decachlorobiphenyl											
Surrogate:					ug/kg dry		93	42-146			
Decachlorobiphenyl [2C]											
Surrogate:					ug/kg dry		73	37-136			
Tetrachloro-m-xylene											
Surrogate:					ug/kg dry		75	37-136			
Tetrachloro-m-xylene											

Matrix Spike Dup Analyzed: 09/18/10 (Lab Number:10I1075-MSD1, Batch: 10I1075)

QC Source Sample: RT10959-01

4,4'-DDD	ND	20.4	2.0	0.40	ug/kg dry	19.0	93	55-129	2	21	
4,4'-DDD [2C]	ND	20.4	2.0	0.40	ug/kg dry	18.7	92	55-129	0.2	21	
4,4'-DDE	3.79	20.4	2.0	0.31	ug/kg dry	18.6	73	59-120	0.06	18	
4,4'-DDE [2C]	4.09	20.4	2.0	0.31	ug/kg dry	19.4	75	59-120	2	18	
4,4'-DDT	3.82	20.4	2.0	0.21	ug/kg dry	19.5	77	47-145	3	25	
4,4'-DDT [2C]	4.00	20.4	2.0	0.21	ug/kg dry	18.7	72	47-145	2	25	
Aldrin	ND	20.4	2.0	0.50	ug/kg dry	15.4	76	35-120	0.3	12	
Aldrin [2C]	ND	20.4	2.0	0.50	ug/kg dry	16.2	80	35-120	0.5	12	
alpha-BHC	ND	20.4	2.0	0.37	ug/kg dry	16.0	79	49-120	3	15	
alpha-BHC [2C]	ND	20.4	2.0	0.37	ug/kg dry	16.1	79	49-120	5	15	
beta-BHC	ND	20.4	2.0	0.22	ug/kg dry	16.6	81	56-120	7	19	
beta-BHC [2C]	ND	20.4	2.0	0.22	ug/kg dry	16.9	83	56-120	7	19	
delta-BHC	ND	20.4	2.0	0.27	ug/kg dry	16.8	83	45-123	3	14	
delta-BHC [2C]	ND	20.4	2.0	0.27	ug/kg dry	17.3	85	45-123	2	14	
Dieldrin	ND	20.4	2.0	0.49	ug/kg dry	17.8	87	57-120	2	12	
Dieldrin [2C]	ND	20.4	2.0	0.49	ug/kg dry	18.0	88	57-120	0.8	12	
Endosulfan I	ND	20.4	2.0	0.26	ug/kg dry	15.3	75	29-125	3	18	

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Organochlorine Pesticides by EPA Method 8081A</u>											
Matrix Spike Dup Analyzed: 09/18/10 (Lab Number:1011075-MSD1, Batch: 1011075)											
QC Source Sample: RT10959-01											
Endosulfan I [2C]	ND	20.4	2.0	0.26	ug/kg dry	15.6	77	29-125	1	18	
Endosulfan II	ND	20.4	2.0	0.37	ug/kg dry	17.3	85	39-121	0.6	26	
Endosulfan II [2C]	ND	20.4	2.0	0.37	ug/kg dry	16.9	83	39-121	0.6	26	
Endosulfan sulfate	ND	20.4	2.0	0.38	ug/kg dry	20.2	99	43-120	0.3	35	
Endosulfan sulfate [2C]	ND	20.4	2.0	0.38	ug/kg dry	18.4	90	43-120	2	35	
Endrin	ND	20.4	2.0	0.28	ug/kg dry	18.0	88	54-127	0.1	20	
Endrin [2C]	ND	20.4	2.0	0.28	ug/kg dry	17.9	88	54-127	0.2	20	
Endrin aldehyde	ND	20.4	2.0	0.52	ug/kg dry	18.2	89	33-120	5	47	
Endrin aldehyde [2C]	ND	20.4	2.0	0.52	ug/kg dry	17.9	88	33-120	5	47	
gamma-BHC (Lindane)	ND	20.4	2.0	0.35	ug/kg dry	16.7	82	50-120	5	12	
gamma-BHC (Lindane) [2C]	ND	20.4	2.0	0.35	ug/kg dry	17.3	85	50-120	4	12	
Heptachlor	ND	20.4	2.0	0.32	ug/kg dry	17.9	88	47-120	6	22	
Heptachlor [2C]	ND	20.4	2.0	0.32	ug/kg dry	16.5	81	47-120	3	22	
Heptachlor epoxide	ND	20.4	2.0	0.53	ug/kg dry	17.5	86	44-122	3	15	
Heptachlor epoxide [2C]	ND	20.4	2.0	0.53	ug/kg dry	17.4	85	44-122	2	15	
Methoxychlor	ND	20.4	2.0	0.28	ug/kg dry	19.5	96	46-152	0.8	24	
Methoxychlor [2C]	ND	20.4	2.0	0.28	ug/kg dry	21.1	104	46-152	8	24	
<i>Surrogate:</i>					ug/kg dry		93	42-146			
<i>Decachlorobiphenyl</i>					ug/kg dry		86	42-146			
<i>Surrogate:</i>					ug/kg dry		72	37-136			
<i>Decachlorobiphenyl [2C]</i>					ug/kg dry		75	37-136			
<i>Surrogate:</i>					ug/kg dry						
<i>Tetrachloro-m-xylene</i>					ug/kg dry						
<i>Surrogate:</i>					ug/kg dry						
<i>Tetrachloro-m-xylene</i>					ug/kg dry						

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Polychlorinated Biphenyls by EPA Method 8082</u>											
Blank Analyzed: 09/16/10 (Lab Number:10I0937-BLK1, Batch: 10I0937)											
Aroclor 1016			16	3.2	ug/kg wet	ND					QSU
Aroclor 1016 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1221			16	3.2	ug/kg wet	ND					QSU
Aroclor 1221 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1242			16	3.5	ug/kg wet	ND					QSU
Aroclor 1242 [2C]			16	3.5	ug/kg wet	ND					QSU
Aroclor 1248			16	3.2	ug/kg wet	ND					QSU
Aroclor 1248 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1254			16	3.4	ug/kg wet	ND					QSU
Aroclor 1254 [2C]			16	3.4	ug/kg wet	ND					QSU
Aroclor 1260			16	7.6	ug/kg wet	ND					QSU
Aroclor 1260 [2C]			16	7.6	ug/kg wet	ND					QSU,C
Surrogate:					ug/kg wet		112	34-148			QSU
Decachlorobiphenyl											
Surrogate:					ug/kg wet		106	34-148			QSU
Decachlorobiphenyl [2C]											
Surrogate:					ug/kg wet		89	35-134			QSU
Tetrachloro-m-xylene											
Surrogate:					ug/kg wet		92	35-134			QSU
Tetrachloro-m-xylene											
LCS Analyzed: 09/16/10 (Lab Number:10I0937-BS1, Batch: 10I0937)											
Aroclor 1016		163	16	3.2	ug/kg wet	160	98	59-154			QSU
Aroclor 1016 [2C]		163	16	3.2	ug/kg wet	149	92	59-154			QSU
Aroclor 1221			16	3.2	ug/kg wet	ND					QSU
Aroclor 1221 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1242			16	3.5	ug/kg wet	ND					QSU
Aroclor 1242 [2C]			16	3.5	ug/kg wet	ND					QSU
Aroclor 1248			16	3.2	ug/kg wet	ND					QSU
Aroclor 1248 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1254			16	3.4	ug/kg wet	ND					QSU
Aroclor 1254 [2C]			16	3.4	ug/kg wet	ND					QSU
Aroclor 1260		163	16	7.6	ug/kg wet	170	104	51-179			QSU
Aroclor 1260 [2C]		163	16	7.6	ug/kg wet	162	99	51-179			QSU,C
Surrogate:					ug/kg wet		108	34-148			QSU
Decachlorobiphenyl											

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Polychlorinated Biphenyls by EPA Method 8082

LCS Analyzed: 09/16/10 (Lab Number:10I0937-BS1, Batch: 10I0937)

Surrogate:					ug/kg wet		104	34-148			QSU
Decachlorobiphenyl [2C]											
Surrogate:					ug/kg wet		88	35-134			QSU
Tetrachloro-m-xylene											
Surrogate:					ug/kg wet		88	35-134			QSU
Tetrachloro-m-xylene											

Polychlorinated Biphenyls by EPA Method 8082

Blank Analyzed: 09/18/10 (Lab Number:10I1073-BLK1, Batch: 10I1073)

Aroclor 1016			16	3.2	ug/kg wet	ND					QSU
Aroclor 1016 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1221			16	3.2	ug/kg wet	ND					QSU
Aroclor 1221 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1242			16	3.6	ug/kg wet	ND					QSU
Aroclor 1242 [2C]			16	3.6	ug/kg wet	ND					QSU
Aroclor 1248			16	3.2	ug/kg wet	ND					QSU
Aroclor 1248 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1254			16	3.5	ug/kg wet	ND					QSU
Aroclor 1254 [2C]			16	3.5	ug/kg wet	ND					QSU
Aroclor 1260			16	7.7	ug/kg wet	ND					QSU
Aroclor 1260 [2C]			16	7.7	ug/kg wet	ND					QSU

Surrogate:					ug/kg wet		96	34-148			QSU
Decachlorobiphenyl											
Surrogate:					ug/kg wet		96	34-148			QSU
Decachlorobiphenyl [2C]											
Surrogate:					ug/kg wet		83	35-134			QSU
Tetrachloro-m-xylene											
Surrogate:					ug/kg wet		84	35-134			QSU
Tetrachloro-m-xylene											

LCS Analyzed: 09/18/10 (Lab Number:10I1073-BS1, Batch: 10I1073)

Aroclor 1016	162		16	3.2	ug/kg wet	160	99	59-154			QSU
Aroclor 1016 [2C]	162		16	3.2	ug/kg wet	150	92	59-154			QSU
Aroclor 1221			16	3.2	ug/kg wet	ND					QSU
Aroclor 1221 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232			16	3.2	ug/kg wet	ND					QSU
Aroclor 1232 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1242			16	3.5	ug/kg wet	ND					QSU
Aroclor 1242 [2C]			16	3.5	ug/kg wet	ND					QSU

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Polychlorinated Biphenyls by EPA Method 8082</u>											
LCS Analyzed: 09/18/10 (Lab Number:10I1073-BS1, Batch: 10I1073)											
Aroclor 1248			16	3.2	ug/kg wet	ND					QSU
Aroclor 1248 [2C]			16	3.2	ug/kg wet	ND					QSU
Aroclor 1254			16	3.4	ug/kg wet	ND					QSU
Aroclor 1254 [2C]			16	3.4	ug/kg wet	ND					QSU
Aroclor 1260		162	16	7.6	ug/kg wet	158	98	51-179			QSU
Aroclor 1260 [2C]		162	16	7.6	ug/kg wet	161	99	51-179			QSU
<i>Surrogate:</i>						<i>ug/kg wet</i>	99	34-148			QSU
<i>Decachlorobiphenyl</i>											
<i>Surrogate:</i>						<i>ug/kg wet</i>	99	34-148			QSU
<i>Decachlorobiphenyl [2C]</i>											
<i>Surrogate:</i>						<i>ug/kg wet</i>	85	35-134			QSU
<i>Tetrachloro-m-xylene</i>											
<i>Surrogate:</i>						<i>ug/kg wet</i>	84	35-134			QSU
<i>Tetrachloro-m-xylene</i>											

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Total Metals by SW 846 Series Methods

Blank Analyzed: 09/20/10 (Lab Number:10I1343-BLK1, Batch: 10I1343)

Mercury			0.0205	NR	mg/kg wet	ND					
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Reference Analyzed: 09/20/10 (Lab Number:10I1343-SRM1, Batch: 10I1343)

Mercury		2.97	0.178	NR	mg/kg wet	2.63	88	67.6-132.8			
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Total Metals by SW 846 Series Methods

Blank Analyzed: 09/22/10 (Lab Number:10I1415-BLK1, Batch: 10I1415)

Aluminum			10.4	NR	mg/kg wet	ND					
Antimony			15.6	NR	mg/kg wet	ND					
Arsenic			2.1	NR	mg/kg wet	ND					
Barium			0.521	NR	mg/kg wet	ND					
Beryllium			0.208	NR	mg/kg wet	ND					
Cadmium			0.208	NR	mg/kg wet	ND					
Calcium			52.1	NR	mg/kg wet	ND					
Chromium			0.521	NR	mg/kg wet	ND					
Cobalt			0.521	NR	mg/kg wet	ND					
Copper			1.0	NR	mg/kg wet	ND					
Iron			10.4	NR	mg/kg wet	ND					
Lead			1.0	NR	mg/kg wet	ND					
Magnesium			20.8	NR	mg/kg wet	ND					
Manganese			0.2	NR	mg/kg wet	0.2					B
Nickel			5.21	NR	mg/kg wet	ND					
Potassium			31.3	NR	mg/kg wet	ND					
Selenium			4.2	NR	mg/kg wet	ND					
Silver			0.521	NR	mg/kg wet	ND					
Sodium			146	NR	mg/kg wet	ND					
Thallium			6.3	NR	mg/kg wet	ND					
Vanadium			0.521	NR	mg/kg wet	ND					
Zinc			2.1	NR	mg/kg wet	ND					

Reference Analyzed: 09/22/10 (Lab Number:10I1415-SRM1, Batch: 10I1415)

Aluminum		10700	10.0	NR	mg/kg wet	8970	84	46.3-153.3			
Antimony		117	15.0	NR	mg/kg wet	49.3	42	22.6-253			
Arsenic		138	2.0	NR	mg/kg wet	135	98	70.4-129.7			
Barium		269	0.499	NR	mg/kg wet	272	101	74-126.4			
Beryllium		157	0.200	NR	mg/kg wet	150	96	75.2-124.8			

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Total Metals by SW 846 Series Methods</u>											
Reference Analyzed: 09/22/10 (Lab Number:10I1415-SRM1, Batch: 10I1415)											
Cadmium		70.9	0.200	NR	mg/kg wet	67.1	95	73.2-126.8			
Calcium		9650	49.9	NR	mg/kg wet	8850	92	75.4-124.2			
Chromium		105	0.499	NR	mg/kg wet	97.3	93	69.3-130.5			
Cobalt		142	0.499	NR	mg/kg wet	137	97	73.9-125.4			
Copper		110	1.0	NR	mg/kg wet	105	95	74.4-125.5			
Iron		19100	10.0	NR	mg/kg wet	14700	77	43-156			
Lead		144	1.0	NR	mg/kg wet	143	99	72.9-126.4			
Magnesium		4400	20.0	NR	mg/kg wet	3960	90	70.3-129.7			
Manganese		538	0.2	NR	mg/kg wet	513	95	77.2-122.6			B1,B
Nickel		130	4.99	NR	mg/kg wet	128	99	72.8-126.9			
Potassium		4990	30.0	NR	mg/kg wet	4640	93	66.4-133.8			
Selenium		200	4.0	NR	mg/kg wet	201	101	68.5-131.5			
Silver		45.0	0.499	NR	mg/kg wet	43.5	97	66.3-133.7			
Sodium		652	140	NR	mg/kg wet	566	87	55.1-144.9			
Thallium		161	6.0	NR	mg/kg wet	165	103	68.3-131.7			
Vanadium		66.9	0.499	NR	mg/kg wet	58.7	88	57.8-142.1			
Zinc		223	2.0	NR	mg/kg wet	230	103	70.4-129.6			

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SDG Number: RTI0959

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/14/10-09/15/10

Reported: 09/30/10 11:33

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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General Chemistry Parameters

Blank Analyzed: 09/18/10 (Lab Number:10I1023-BLK1, Batch: 10I1023)

Total Cyanide			1.0	0.5	mg/kg wet	ND					
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LCS Analyzed: 09/18/10 (Lab Number:10I1023-BS1, Batch: 10I1023)

Total Cyanide		31.5	0.9	0.5	mg/kg wet	28.5	90	40-160			
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General Chemistry Parameters

Blank Analyzed: 09/21/10 (Lab Number:10I1387-BLK1, Batch: 10I1387)

Total Cyanide			1.0	0.5	mg/kg wet	ND					
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LCS Analyzed: 09/21/10 (Lab Number:10I1387-BS1, Batch: 10I1387)

Total Cyanide		31.5	1.0	0.5	mg/kg wet	21.2	67	40-160			
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Analytical Report

Work Order: RTI1555

Project Description

Benchmark - 295 Maryland St. site

For:

Tom Forbes

Benchmark Environmental & Engineering Science

2558 Hamburg Turnpike, Suite 300

Lackawanna, NY 14218



Brian Fischer

Project Manager

Brian.Fischer@testamericainc.com

Friday, October 15, 2010

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exception to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project manager who has signed this report.

TestAmerica Buffalo Current Certifications

As of 08/16/2010

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA, NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA, CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP, SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA	10026
North Dakota	CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Oregon*	CWA, RCRA	NY200003
Pennsylvania*	NELAP CWA, RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA, RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA, RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverables has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Brian Fischer
Project Manager

Friday, October 15, 2010

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

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TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to the lab MDL. It must be noted that results reported below lab standard quantitation limits (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

<u>SpecificMethod</u>	<u>Analyte</u>	<u>Units</u>	<u>Client RL</u>	<u>Lab PQL</u>
8270C	4-Methylphenol	ug/L	5.0	10

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

DATA QUALIFIERS AND DEFINITIONS

D03	Dilution required due to excessive foaming
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
QSU	Sulfur (EPA 3660) clean-up performed on extract.
Z	Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
Z1	Surrogate recovery was above acceptance limits.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-01 (MW-1 - Water)

Sampled: 09/23/10 10:20

Recvd: 09/24/10 09:00

Volatile Organic Compounds by EPA 8260B

Acetone	5.0	J	10	3.0	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Chloroform	2.0		1.0	0.34	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B

Semivolatile Organics by GC/MS

Butyl benzyl phthalate	0.51	J	9.6	0.40	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Di-n-butyl phthalate	0.51	J	9.6	0.30	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDT	0.082		0.047	0.010	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Endosulfan II	0.069		0.047	0.011	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
gamma-Chlordane	0.036	J	0.047	0.010	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Heptachlor epoxide	0.018	J	0.047	0.0050	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Methoxychlor	0.059		0.047	0.013	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A

Total Metals by SW 846 Series Methods

Barium	0.0542		0.0020	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Calcium	75.6		0.5	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Magnesium	45.3		0.200	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Manganese	0.0739		0.0030	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Potassium	4.50		0.500	NR	mg/L	1.00	09/29/10 12:30	DAN	10I1960	6010B
Sodium	25.1		1.0	NR	mg/L	1.00	09/29/10 12:30	DAN	10I1960	6010B

Sample ID: RTI1555-02 (MW-2 - Water)

Sampled: 09/23/10 13:35

Recvd: 09/24/10 09:00

Volatile Organic Compounds by EPA 8260B

Benzene	38	D03	5.0	2.0	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Chloroform	4.2	D03,J	5.0	1.7	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Ethylbenzene	39	D03	5.0	3.7	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Toluene	18	D03	5.0	2.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Xylenes, total	97	D03	10	3.3	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B

Semivolatile Organics by GC/MS

2-Methylphenol	1.3	J	9.4	0.38	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Acetophenone	2.8	J	9.4	0.51	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Benzo(a)anthracene	0.35	J	9.4	0.34	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Butyl benzyl phthalate	0.71	J	9.4	0.40	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Di-n-butyl phthalate	0.65	J	9.4	0.29	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Fluoranthene	0.47	J	9.4	0.38	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Naphthalene	21		9.4	0.72	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Phenanthrene	0.58	J	9.4	0.42	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Pyrene	0.42	J	9.4	0.32	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C

Organochlorine Pesticides by EPA Method 8081A

beta-BHC	0.060		0.047	0.023	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Endosulfan II	0.11		0.047	0.011	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
gamma-Chlordane	0.041	J	0.047	0.010	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Methoxychlor	0.098		0.047	0.013	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A

Total Metals by SW 846 Series Methods

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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-02 (MW-2 - Water) - cont.					Sampled: 09/23/10 13:35			Recvd: 09/24/10 09:00		
<u>Total Metals by SW 846 Series Methods - cont.</u>										
Barium	0.332		0.0020	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Calcium	119		0.5	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Magnesium	107		0.200	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Manganese	0.204		0.0030	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Potassium	6.41		0.500	NR	mg/L	1.00	09/29/10 12:36	DAN	10I1960	6010B
Sodium	59.2		1.0	NR	mg/L	1.00	09/29/10 12:36	DAN	10I1960	6010B
Sample ID: RTI1555-03 (MW-3 - Water)					Sampled: 09/23/10 12:25			Recvd: 09/24/10 09:00		
<u>Volatile Organic Compounds by EPA 8260B</u>										
Chloroform	5.4	D03	4.0	1.3	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
<u>Semivolatile Organics by GC/MS</u>										
Acetophenone	1.1	J	9.4	0.51	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Butyl benzyl phthalate	0.58	J	9.4	0.40	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Di-n-butyl phthalate	0.55	J	9.4	0.29	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Phenanthrene	0.46	J	9.4	0.42	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
<u>Organochlorine Pesticides by EPA Method 8081A</u>										
4,4'-DDD	0.23	J	0.24	0.043	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
alpha-BHC	0.18	J	0.24	0.031	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
beta-BHC	0.13	J	0.24	0.12	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Endosulfan II	0.14	J	0.24	0.057	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
gamma-Chlordane	0.13	J	0.24	0.052	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Heptachlor	0.11	J	0.24	0.040	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Methoxychlor	0.20	J	0.24	0.067	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
<u>Total Metals by SW 846 Series Methods</u>										
Barium	0.0985		0.0020	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Calcium	123		0.5	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Magnesium	98.3		0.200	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Manganese	0.195		0.0030	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Nickel	0.0159		0.0100	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Potassium	10.0		0.500	NR	mg/L	1.00	09/29/10 12:41	DAN	10I1960	6010B
Sodium	88.8		1.0	NR	mg/L	1.00	09/29/10 12:41	DAN	10I1960	6010B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-04 (MW-4 - Water)					Sampled: 09/23/10 11:20			Recvd: 09/24/10 09:00		
<u>Volatile Organic Compounds by EPA 8260B</u>										
Chloroform	2.8	D03,J	4.0	1.3	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
<u>Semivolatile Organics by GC/MS</u>										
Butyl benzyl phthalate	0.72	J	9.5	0.40	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Diethyl phthalate	1.5	J	9.5	0.21	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Di-n-butyl phthalate	1.1	J	9.5	0.30	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
<u>Organochlorine Pesticides by EPA Method 8081A</u>										
4,4'-DDD	0.25		0.24	0.043	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
4,4'-DDT	0.20	J	0.24	0.052	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
beta-BHC	0.21	J	0.24	0.12	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Dieldrin	0.14	J	0.24	0.046	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endosulfan I	0.070	J	0.24	0.052	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endosulfan II	0.14	J	0.24	0.057	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endosulfan sulfate	0.092	J	0.24	0.074	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
gamma-Chlordane	0.15	J	0.24	0.052	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Heptachlor	0.14	J	0.24	0.040	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Methoxychlor	0.16	J	0.24	0.067	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
<u>Total Metals by SW 846 Series Methods</u>										
Barium	0.0687		0.0020	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Calcium	150		0.5	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Magnesium	151		0.200	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Manganese	0.315		0.0030	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Potassium	12.2		0.500	NR	mg/L	1.00	09/29/10 12:47	DAN	10I1960	6010B
Sodium	34.4		1.0	NR	mg/L	1.00	09/29/10 12:47	DAN	10I1960	6010B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
MW-1	RTI1555-01	Water	09/23/10 10:20	09/24/10 15:10	
MW-2	RTI1555-02	Water	09/23/10 13:35	09/24/10 15:10	
MW-3	RTI1555-03	Water	09/23/10 12:25	09/24/10 15:10	
MW-4	RTI1555-04	Water	09/23/10 11:20	09/24/10 15:10	
TRIP BLANK	RTI1555-05	Water	09/24/10	09/24/10 15:10	

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-01 (MW-1 - Water)						Sampled: 09/23/10 10:20		Recvd: 09/24/10 09:00		
<u>Volatile Organic Compounds by EPA 8260B</u>										
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,2-Dibromo-3-chloropropene	ND		1.0	0.39	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
2-Butanone	ND		10	1.3	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Acetone	5.0	J	10	3.0	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Bromoform	ND		1.0	0.26	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Dibromochloromethane	ND		1.0	0.32	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Chloroform	2.0		1.0	0.34	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Cyclohexane	ND		1.0	0.18	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Dichlorodifluoromethane	ND		1.0	0.68	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-01 (MW-1 - Water) - cont.

Sampled: 09/23/10 10:20

Recvd: 09/24/10 09:00

Volatile Organic Compounds by EPA 8260B - cont.

Xylenes, total	ND		2.0	0.66	ug/L	1.00	09/29/10 23:40	NMD	10I2169	8260B
1,2-Dichloroethane-d4	96 %		Surr Limits: (66-137%)				09/29/10 23:40	NMD	10I2169	8260B
4-Bromofluorobenzene	106 %		Surr Limits: (73-120%)				09/29/10 23:40	NMD	10I2169	8260B
Toluene-d8	104 %		Surr Limits: (71-126%)				09/29/10 23:40	NMD	10I2169	8260B

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND		24	0.46	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2,4,6-Trichlorophenol	ND		9.6	0.59	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2,4-Dichlorophenol	ND		9.6	0.49	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2,4-Dimethylphenol	ND		9.6	0.48	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2,4-Dinitrophenol	ND		48	2.1	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2,4-Dinitrotoluene	ND		9.6	0.43	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2,6-Dinitrotoluene	ND		9.6	0.38	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2-Chloronaphthalene	ND		9.6	0.44	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2-Chlorophenol	ND		9.6	0.51	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2-Methylnaphthalene	ND		9.6	0.58	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2-Methylphenol	ND		9.6	0.38	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2-Nitroaniline	ND		48	0.40	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2-Nitrophenol	ND		9.6	0.46	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
3,3'-Dichlorobenzidine	ND		19	0.38	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
3-Nitroaniline	ND		48	0.46	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4,6-Dinitro-2-methylphenol	ND		48	2.1	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4-Bromophenyl phenyl ether	ND		9.6	0.43	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4-Chloro-3-methylphenol	ND		9.6	0.43	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4-Chloroaniline	ND		9.6	0.57	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4-Chlorophenyl phenyl ether	ND		9.6	0.34	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4-Methylphenol	ND		4.8	0.35	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4-Nitroaniline	ND		48	0.24	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
4-Nitrophenol	ND		48	1.5	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Acenaphthene	ND		9.6	0.39	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Acenaphthylene	ND		9.6	0.37	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Acetophenone	ND		9.6	0.52	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Anthracene	ND		9.6	0.27	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Atrazine	ND		9.6	0.44	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Benzaldehyde	ND		48	0.26	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Benzo(a)anthracene	ND		9.6	0.35	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Benzo(a)pyrene	ND		9.6	0.45	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Benzo(b)fluoranthene	ND		9.6	0.33	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Benzo(ghi)perylene	ND		9.6	0.34	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Benzo(k)fluoranthene	ND		9.6	0.70	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Biphenyl	ND		9.6	0.63	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Bis(2-chloroethoxy)methane	ND		9.6	0.34	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Bis(2-chloroethyl)ether	ND		9.6	0.38	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
2,2'-Oxybis(1-Chloropropane)	ND		9.6	0.50	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Bis(2-ethylhexyl)phthalate	ND		9.6	1.7	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-01 (MW-1 - Water) - cont.

Sampled: 09/23/10 10:20

Recvd: 09/24/10 09:00

Semivolatile Organics by GC/MS - cont.

Butyl benzyl phthalate	0.51	J	9.6	0.40	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Caprolactam	ND		9.6	2.1	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Carbazole	ND		4.8	0.29	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Chrysene	ND		9.6	0.32	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Dibenzo(a,h)anthracene	ND		9.6	0.40	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Dibenzofuran	ND		9.6	0.49	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Diethyl phthalate	ND		9.6	0.21	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Dimethyl phthalate	ND		9.6	0.35	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Di-n-butyl phthalate	0.51	J	9.6	0.30	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Di-n-octyl phthalate	ND		9.6	0.45	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Fluoranthene	ND		9.6	0.38	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Fluorene	ND		9.6	0.35	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Hexachlorobenzene	ND		9.6	0.49	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Hexachlorobutadiene	ND		9.6	0.65	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Hexachlorocyclopentadiene	ND		9.6	0.57	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Hexachloroethane	ND		9.6	0.57	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Indeno(1,2,3-cd)pyrene	ND		9.6	0.45	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Isophorone	ND		9.6	0.41	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Naphthalene	ND		9.6	0.73	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Nitrobenzene	ND		9.6	0.28	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
N-Nitrosodi-n-propylamine	ND		9.6	0.52	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
N-Nitrosodiphenylamine	ND		9.6	0.49	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Pentachlorophenol	ND		48	2.1	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Phenanthrene	ND		9.6	0.42	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Phenol	ND		9.6	0.38	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C
Pyrene	ND		9.6	0.33	ug/L	1.00	10/09/10 17:00	MKP	10I1861	8270C

2,4,6-Tribromophenol	121 %	Surr Limits: (52-132%)	10/09/10 17:00	MKP	10I1861	8270C
2-Fluorobiphenyl	89 %	Surr Limits: (48-120%)	10/09/10 17:00	MKP	10I1861	8270C
2-Fluorophenol	46 %	Surr Limits: (20-120%)	10/09/10 17:00	MKP	10I1861	8270C
Nitrobenzene-d5	88 %	Surr Limits: (46-120%)	10/09/10 17:00	MKP	10I1861	8270C
Phenol-d5	33 %	Surr Limits: (16-120%)	10/09/10 17:00	MKP	10I1861	8270C
p-Terphenyl-d14	63 %	Surr Limits: (24-136%)	10/09/10 17:00	MKP	10I1861	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDD	ND	0.047	0.0087	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
4,4'-DDE	ND	0.047	0.011	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
4,4'-DDT	0.082	0.047	0.010	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Aldrin	ND	0.047	0.0062	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
alpha-BHC	ND	0.047	0.0062	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
alpha-Chlordane	ND	0.047	0.014	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
beta-BHC	ND	0.047	0.023	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Chlordane	ND	0.47	0.027	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
delta-BHC	ND	0.047	0.0095	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Dieldrin	ND	0.047	0.0092	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Endosulfan I	ND	0.047	0.010	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Endosulfan II	0.069	0.047	0.011	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Endosulfan sulfate	ND	0.047	0.015	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Endrin	ND	0.047	0.013	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Endrin aldehyde	ND	0.047	0.015	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

www.testamericainc.com

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RT11555-01 (MW-1 - Water) - cont.

Sampled: 09/23/10 10:20

Recvd: 09/24/10 09:00

Organochlorine Pesticides by EPA Method 8081A - cont.

Endrin ketone	ND		0.047	0.011	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
gamma-BHC (Lindane)	ND		0.047	0.0057	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
gamma-Chlordane	0.036	J	0.047	0.010	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Heptachlor	ND		0.047	0.0080	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Heptachlor epoxide	0.018	J	0.047	0.0050	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Methoxychlor	0.059		0.047	0.013	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A
Toxaphene	ND		0.47	0.11	ug/L	1.00	09/28/10 20:45	LMW	10I1862	8081A

Decachlorobiphenyl 52 % *Surr Limits: (15-139%)* 09/28/10 20:45 LMW 10I1862 8081A

Tetrachloro-m-xylene 97 % *Surr Limits: (30-139%)* 09/28/10 20:45 LMW 10I1862 8081A

Polychlorinated Biphenyls by EPA Method 8082

Aroclor 1016	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:19	JxM	10I1863	8082
Aroclor 1221	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:19	JxM	10I1863	8082
Aroclor 1232	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:19	JxM	10I1863	8082
Aroclor 1242	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:19	JxM	10I1863	8082
Aroclor 1248	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:19	JxM	10I1863	8082
Aroclor 1254	ND	QSU	0.47	0.24	ug/L	1.00	09/28/10 23:19	JxM	10I1863	8082
Aroclor 1260	ND	QSU	0.47	0.24	ug/L	1.00	09/28/10 23:19	JxM	10I1863	8082

Decachlorobiphenyl 45 % *QSU Surr Limits: (12-137%)* 09/28/10 23:19 JxM 10I1863 8082

Tetrachloro-m-xylene 72 % *QSU Surr Limits: (35-121%)* 09/28/10 23:19 JxM 10I1863 8082

Total Metals by SW 846 Series Methods

Aluminum	ND		0.200	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Antimony	ND		0.0200	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Arsenic	ND		0.0100	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Barium	0.0542		0.0020	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Beryllium	ND		0.0020	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Cadmium	ND		0.0010	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Calcium	75.6		0.5	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Chromium	ND		0.0040	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Cobalt	ND		0.0040	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Copper	ND		0.0100	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Iron	ND		0.050	NR	mg/L	1.00	09/29/10 12:30	DAN	10I1960	6010B
Lead	ND		0.0050	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Magnesium	45.3		0.200	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Manganese	0.0739		0.0030	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Nickel	ND		0.0100	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Potassium	4.50		0.500	NR	mg/L	1.00	09/29/10 12:30	DAN	10I1960	6010B
Selenium	ND		0.0150	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Silver	ND		0.0030	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Sodium	25.1		1.0	NR	mg/L	1.00	09/29/10 12:30	DAN	10I1960	6010B
Thallium	ND		0.0200	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Vanadium	ND		0.0050	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Zinc	ND		0.0100	NR	mg/L	1.00	09/28/10 23:15	MxM	10I1960	6010B
Mercury	ND		0.0002	NR	mg/L	1.00	09/30/10 12:25	JRK	10I2202	7470A

General Chemistry Parameters

Total Cyanide	ND	L	0.0100	NR	mg/L	1.00	10/01/10 15:04	RJF	10I2226	9012A
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TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

www.testamericainc.com

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-02 (MW-2 - Water)						Sampled: 09/23/10 13:35		Recvd: 09/24/10 09:00		
<u>Volatile Organic Compounds by EPA 8260B</u>										
1,1,1-Trichloroethane	ND	D03	5.0	4.1	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,1,2,2-Tetrachloroethane	ND	D03	5.0	1.1	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,1,2-Trichloroethane	ND	D03	5.0	1.2	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D03	5.0	1.5	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,1-Dichloroethane	ND	D03	5.0	1.9	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,1-Dichloroethene	ND	D03	5.0	1.5	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,2,4-Trichlorobenzene	ND	D03	5.0	2.0	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,2-Dibromo-3-chloropropane	ND	D03	5.0	2.0	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,2-Dibromoethane	ND	D03	5.0	3.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,2-Dichlorobenzene	ND	D03	5.0	4.0	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,2-Dichloroethane	ND	D03	5.0	1.1	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,2-Dichloropropane	ND	D03	5.0	3.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,3-Dichlorobenzene	ND	D03	5.0	3.9	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,4-Dichlorobenzene	ND	D03	5.0	4.2	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
2-Butanone	ND	D03	50	6.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
2-Hexanone	ND	D03	25	6.2	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
4-Methyl-2-pentanone	ND	D03	25	10	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Acetone	ND	D03	50	15	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Benzene	38	D03	5.0	2.0	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Bromodichloromethane	ND	D03	5.0	1.9	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Bromoform	ND	D03	5.0	1.3	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Bromomethane	ND	D03	5.0	3.4	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Carbon disulfide	ND	D03	5.0	0.97	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Carbon Tetrachloride	ND	D03	5.0	1.3	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Chlorobenzene	ND	D03	5.0	3.8	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Dibromochloromethane	ND	D03	5.0	1.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Chloroethane	ND	D03	5.0	1.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Chloroform	4.2	D03,J	5.0	1.7	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Chloromethane	ND	D03	5.0	1.7	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
cis-1,2-Dichloroethene	ND	D03	5.0	4.0	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
cis-1,3-Dichloropropene	ND	D03	5.0	1.8	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Cyclohexane	ND	D03	5.0	0.90	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Dichlorodifluoromethane	ND	D03	5.0	3.4	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Ethylbenzene	39	D03	5.0	3.7	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Isopropylbenzene	ND	D03	5.0	4.0	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Methyl Acetate	ND	D03	5.0	2.5	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Methyl-t-Butyl Ether (MTBE)	ND	D03	5.0	0.80	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Methylcyclohexane	ND	D03	5.0	0.80	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Methylene Chloride	ND	D03	5.0	2.2	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Styrene	ND	D03	5.0	3.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Tetrachloroethene	ND	D03	5.0	1.8	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Toluene	18	D03	5.0	2.6	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
trans-1,2-Dichloroethene	ND	D03	5.0	4.5	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
trans-1,3-Dichloropropene	ND	D03	5.0	1.8	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Trichloroethene	ND	D03	5.0	2.3	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Trichlorofluoromethane	ND	D03	5.0	4.4	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
Vinyl chloride	ND	D03	5.0	4.5	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B

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Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-02 (MW-2 - Water) - cont.

Sampled: 09/23/10 13:35

Recvd: 09/24/10 09:00

Volatile Organic Compounds by EPA 8260B - cont.

Xylenes, total	97	D03	10	3.3	ug/L	5.00	09/30/10 00:03	NMD	10I2169	8260B
1,2-Dichloroethane-d4	96 %	D03	Surr Limits: (66-137%)				09/30/10 00:03	NMD	10I2169	8260B
4-Bromofluorobenzene	106 %	D03	Surr Limits: (73-120%)				09/30/10 00:03	NMD	10I2169	8260B
Toluene-d8	104 %	D03	Surr Limits: (71-126%)				09/30/10 00:03	NMD	10I2169	8260B

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND		24	0.45	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,4,6-Trichlorophenol	ND		9.4	0.58	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,4-Dichlorophenol	ND		9.4	0.48	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,4-Dimethylphenol	ND		9.4	0.47	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,4-Dinitrophenol	ND		47	2.1	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,4-Dinitrotoluene	ND		9.4	0.42	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,6-Dinitrotoluene	ND		9.4	0.38	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2-Chloronaphthalene	ND		9.4	0.43	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2-Chlorophenol	ND		9.4	0.50	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2-Methylnaphthalene	ND		9.4	0.57	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2-Methylphenol	1.3	J	9.4	0.38	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2-Nitroaniline	ND		47	0.40	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2-Nitrophenol	ND		9.4	0.45	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
3,3'-Dichlorobenzidine	ND		19	0.38	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
3-Nitroaniline	ND		47	0.45	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4,6-Dinitro-2-methylphenol	ND		47	2.1	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4-Bromophenyl phenyl ether	ND		9.4	0.42	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4-Chloro-3-methylphenol	ND		9.4	0.42	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4-Chloroaniline	ND		9.4	0.56	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4-Chlorophenyl phenyl ether	ND		9.4	0.33	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4-Methylphenol	ND		4.7	0.34	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4-Nitroaniline	ND		47	0.24	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
4-Nitrophenol	ND		47	1.4	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Acenaphthene	ND		9.4	0.39	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Acenaphthylene	ND		9.4	0.36	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Acetophenone	2.8	J	9.4	0.51	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Anthracene	ND		9.4	0.26	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Atrazine	ND		9.4	0.43	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Benzaldehyde	ND		47	0.25	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Benzo(a)anthracene	0.35	J	9.4	0.34	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Benzo(a)pyrene	ND		9.4	0.44	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Benzo(b)fluoranthene	ND		9.4	0.32	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Benzo(ghi)perylene	ND		9.4	0.33	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Benzo(k)fluoranthene	ND		9.4	0.69	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Biphenyl	ND		9.4	0.62	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Bis(2-chloroethoxy)methane	ND		9.4	0.33	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Bis(2-chloroethyl)ether	ND		9.4	0.38	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,2'-Oxybis(1-Chloropropane)	ND		9.4	0.49	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Bis(2-ethylhexyl)phthalate	ND		9.4	1.7	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-02 (MW-2 - Water) - cont.						Sampled: 09/23/10 13:35		Recvd: 09/24/10 09:00		
<u>Semivolatile Organics by GC/MS - cont.</u>										
Butyl benzyl phthalate	0.71	J	9.4	0.40	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Caprolactam	ND		9.4	2.1	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Carbazole	ND		4.7	0.28	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Chrysene	ND		9.4	0.31	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Dibenzo(a,h)anthracene	ND		9.4	0.40	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Dibenzofuran	ND		9.4	0.48	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Diethyl phthalate	ND		9.4	0.21	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Dimethyl phthalate	ND		9.4	0.34	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Di-n-butyl phthalate	0.65	J	9.4	0.29	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Di-n-octyl phthalate	ND		9.4	0.44	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Fluoranthene	0.47	J	9.4	0.38	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Fluorene	ND		9.4	0.34	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Hexachlorobenzene	ND		9.4	0.48	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Hexachlorobutadiene	ND		9.4	0.64	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Hexachlorocyclopentadiene	ND		9.4	0.56	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Hexachloroethane	ND		9.4	0.56	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Indeno(1,2,3-cd)pyrene	ND		9.4	0.44	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Isophorone	ND		9.4	0.41	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Naphthalene	21		9.4	0.72	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Nitrobenzene	ND		9.4	0.27	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
N-Nitrosodi-n-propylamine	ND		9.4	0.51	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
N-Nitrosodiphenylamine	ND		9.4	0.48	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Pentachlorophenol	ND		47	2.1	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Phenanthrene	0.58	J	9.4	0.42	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Phenol	ND		9.4	0.37	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
Pyrene	0.42	J	9.4	0.32	ug/L	1.00	10/09/10 17:24	MKP	10I1861	8270C
2,4,6-Tribromophenol	121 %		Surr Limits: (52-132%)				10/09/10 17:24	MKP	10I1861	8270C
2-Fluorobiphenyl	82 %		Surr Limits: (48-120%)				10/09/10 17:24	MKP	10I1861	8270C
2-Fluorophenol	42 %		Surr Limits: (20-120%)				10/09/10 17:24	MKP	10I1861	8270C
Nitrobenzene-d5	82 %		Surr Limits: (46-120%)				10/09/10 17:24	MKP	10I1861	8270C
Phenol-d5	30 %		Surr Limits: (16-120%)				10/09/10 17:24	MKP	10I1861	8270C
p-Terphenyl-d14	50 %		Surr Limits: (24-136%)				10/09/10 17:24	MKP	10I1861	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDD	ND		0.047	0.0087	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
4,4'-DDE	ND		0.047	0.011	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
4,4'-DDT	ND		0.047	0.010	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Aldrin	ND		0.047	0.0062	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
alpha-BHC	ND		0.047	0.0062	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
alpha-Chlordane	ND		0.047	0.014	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
beta-BHC	0.060		0.047	0.023	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Chlordane	ND		0.47	0.027	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
delta-BHC	ND		0.047	0.0095	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Dieldrin	ND		0.047	0.0092	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Endosulfan I	ND		0.047	0.010	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Endosulfan II	0.11		0.047	0.011	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Endosulfan sulfate	ND		0.047	0.015	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Endrin	ND		0.047	0.013	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Endrin aldehyde	ND		0.047	0.015	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RT11555-02 (MW-2 - Water) - cont.

Sampled: 09/23/10 13:35

Recvd: 09/24/10 09:00

Organochlorine Pesticides by EPA Method 8081A - cont.

Endrin ketone	ND		0.047	0.011	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
gamma-BHC (Lindane)	ND		0.047	0.0057	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
gamma-Chlordane	0.041	J	0.047	0.010	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Heptachlor	ND		0.047	0.0080	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Heptachlor epoxide	ND		0.047	0.0050	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Methoxychlor	0.098		0.047	0.013	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A
Toxaphene	ND		0.47	0.11	ug/L	1.00	09/28/10 21:21	LMW	10I1862	8081A

Decachlorobiphenyl 30 % *Surr Limits: (15-139%)* 09/28/10 21:21 LMW 10I1862 8081A

Tetrachloro-m-xylene 134 % *Surr Limits: (30-139%)* 09/28/10 21:21 LMW 10I1862 8081A

Polychlorinated Biphenyls by EPA Method 8082

Aroclor 1016	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:37	JxM	10I1863	8082
Aroclor 1221	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:37	JxM	10I1863	8082
Aroclor 1232	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:37	JxM	10I1863	8082
Aroclor 1242	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:37	JxM	10I1863	8082
Aroclor 1248	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:37	JxM	10I1863	8082
Aroclor 1254	ND	QSU	0.47	0.24	ug/L	1.00	09/28/10 23:37	JxM	10I1863	8082
Aroclor 1260	ND	QSU	0.47	0.24	ug/L	1.00	09/28/10 23:37	JxM	10I1863	8082

Decachlorobiphenyl 31 % *QSU Surr Limits: (12-137%)* 09/28/10 23:37 JxM 10I1863 8082

Tetrachloro-m-xylene 62 % *QSU Surr Limits: (35-121%)* 09/28/10 23:37 JxM 10I1863 8082

Total Metals by SW 846 Series Methods

Aluminum	ND		0.200	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Antimony	ND		0.0200	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Arsenic	ND		0.0100	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Barium	0.332		0.0020	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Beryllium	ND		0.0020	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Cadmium	ND		0.0010	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Calcium	119		0.5	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Chromium	ND		0.0040	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Cobalt	ND		0.0040	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Copper	ND		0.0100	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Iron	ND		0.050	NR	mg/L	1.00	09/29/10 12:36	DAN	10I1960	6010B
Lead	ND		0.0050	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Magnesium	107		0.200	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Manganese	0.204		0.0030	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Nickel	ND		0.0100	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Potassium	6.41		0.500	NR	mg/L	1.00	09/29/10 12:36	DAN	10I1960	6010B
Selenium	ND		0.0150	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Silver	ND		0.0030	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Sodium	59.2		1.0	NR	mg/L	1.00	09/29/10 12:36	DAN	10I1960	6010B
Thallium	ND		0.0200	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Vanadium	ND		0.0050	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Zinc	ND		0.0100	NR	mg/L	1.00	09/28/10 23:17	MxM	10I1960	6010B
Mercury	ND		0.0002	NR	mg/L	1.00	09/30/10 12:26	JRK	10I2202	7470A

General Chemistry Parameters

Total Cyanide	ND	L	0.0100	NR	mg/L	1.00	10/01/10 15:05	RJF	10I2226	9012A
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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-03 (MW-3 - Water)						Sampled: 09/23/10 12:25		Recvd: 09/24/10 09:00		
<u>Volatile Organic Compounds by EPA 8260B</u>										
1,1,1-Trichloroethane	ND	D03	4.0	3.3	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,1,2,2-Tetrachloroethane	ND	D03	4.0	0.85	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,1,2-Trichloroethane	ND	D03	4.0	0.92	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D03	4.0	1.2	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,1-Dichloroethane	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,1-Dichloroethene	ND	D03	4.0	1.2	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,2,4-Trichlorobenzene	ND	D03	4.0	1.6	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,2-Dibromo-3-chloropropene	ND	D03	4.0	1.6	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,2-Dibromoethane	ND	D03	4.0	2.9	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,2-Dichlorobenzene	ND	D03	4.0	3.2	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,2-Dichloroethane	ND	D03	4.0	0.86	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,2-Dichloropropane	ND	D03	4.0	2.9	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,3-Dichlorobenzene	ND	D03	4.0	3.1	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
1,4-Dichlorobenzene	ND	D03	4.0	3.4	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
2-Butanone	ND	D03	40	5.3	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
2-Hexanone	ND	D03	20	5.0	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
4-Methyl-2-pentanone	ND	D03	20	8.4	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Acetone	ND	D03	40	12	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Benzene	ND	D03	4.0	1.6	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Bromodichloromethane	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Bromoform	ND	D03	4.0	1.0	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Bromomethane	ND	D03	4.0	2.8	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Carbon disulfide	ND	D03	4.0	0.78	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Carbon Tetrachloride	ND	D03	4.0	1.1	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Chlorobenzene	ND	D03	4.0	3.0	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Dibromochloromethane	ND	D03	4.0	1.3	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Chloroethane	ND	D03	4.0	1.3	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Chloroform	5.4	D03	4.0	1.3	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Chloromethane	ND	D03	4.0	1.4	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
cis-1,2-Dichloroethene	ND	D03	4.0	3.2	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
cis-1,3-Dichloropropene	ND	D03	4.0	1.4	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Cyclohexane	ND	D03	4.0	0.72	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Dichlorodifluoromethane	ND	D03	4.0	2.7	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Ethylbenzene	ND	D03	4.0	3.0	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Isopropylbenzene	ND	D03	4.0	3.2	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Methyl Acetate	ND	D03	4.0	2.0	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Methyl-t-Butyl Ether (MTBE)	ND	D03	4.0	0.64	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Methylcyclohexane	ND	D03	4.0	0.64	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Methylene Chloride	ND	D03	4.0	1.8	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Styrene	ND	D03	4.0	2.9	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Tetrachloroethene	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Toluene	ND	D03	4.0	2.0	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
trans-1,2-Dichloroethene	ND	D03	4.0	3.6	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
trans-1,3-Dichloropropene	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Trichloroethene	ND	D03	4.0	1.8	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Trichlorofluoromethane	ND	D03	4.0	3.5	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B
Vinyl chloride	ND	D03	4.0	3.6	ug/L	4.00	09/30/10 14:02	DHC	10I2207	8260B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RT11555-03 (MW-3 - Water) - cont.

Sampled: 09/23/10 12:25

Recvd: 09/24/10 09:00

Volatile Organic Compounds by EPA 8260B - cont.

Xylenes, total	ND	D03	8.0	2.6	ug/L	4.00	09/30/10 14:02	DHC	1012207	8260B
1,2-Dichloroethane-d4	98 %	D03	Surr Limits: (66-137%)				09/30/10 14:02	DHC	1012207	8260B
4-Bromofluorobenzene	107 %	D03	Surr Limits: (73-120%)				09/30/10 14:02	DHC	1012207	8260B
Toluene-d8	107 %	D03	Surr Limits: (71-126%)				09/30/10 14:02	DHC	1012207	8260B

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND		24	0.45	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2,4,6-Trichlorophenol	ND		9.4	0.58	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2,4-Dichlorophenol	ND		9.4	0.48	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2,4-Dimethylphenol	ND		9.4	0.47	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2,4-Dinitrophenol	ND		47	2.1	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2,4-Dinitrotoluene	ND		9.4	0.42	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2,6-Dinitrotoluene	ND		9.4	0.38	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2-Chloronaphthalene	ND		9.4	0.43	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2-Chlorophenol	ND		9.4	0.50	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2-Methylnaphthalene	ND		9.4	0.57	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2-Methylphenol	ND		9.4	0.38	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2-Nitroaniline	ND		47	0.40	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2-Nitrophenol	ND		9.4	0.45	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
3,3'-Dichlorobenzidine	ND		19	0.38	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
3-Nitroaniline	ND		47	0.45	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4,6-Dinitro-2-methylphenol	ND		47	2.1	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4-Bromophenyl phenyl ether	ND		9.4	0.42	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4-Chloro-3-methylphenol	ND		9.4	0.42	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4-Chloroaniline	ND		9.4	0.56	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4-Chlorophenyl phenyl ether	ND		9.4	0.33	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4-Methylphenol	ND		4.7	0.34	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4-Nitroaniline	ND		47	0.24	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
4-Nitrophenol	ND		47	1.4	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Acenaphthene	ND		9.4	0.39	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Acenaphthylene	ND		9.4	0.36	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Acetophenone	1.1	J	9.4	0.51	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Anthracene	ND		9.4	0.26	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Atrazine	ND		9.4	0.43	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Benzaldehyde	ND		47	0.25	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Benzo(a)anthracene	ND		9.4	0.34	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Benzo(a)pyrene	ND		9.4	0.44	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Benzo(b)fluoranthene	ND		9.4	0.32	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Benzo(ghi)perylene	ND		9.4	0.33	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Benzo(k)fluoranthene	ND		9.4	0.69	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Biphenyl	ND		9.4	0.62	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Bis(2-chloroethoxy)methane	ND		9.4	0.33	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Bis(2-chloroethyl)ether	ND		9.4	0.38	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
2,2'-Oxybis(1-Chloropropane)	ND		9.4	0.49	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C
Bis(2-ethylhexyl)phthalate	ND		9.4	1.7	ug/L	1.00	10/09/10 17:47	MKP	1011861	8270C

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-03 (MW-3 - Water) - cont.

Sampled: 09/23/10 12:25

Recvd: 09/24/10 09:00

Semivolatile Organics by GC/MS - cont.

Butyl benzyl phthalate	0.58	J	9.4	0.40	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Caprolactam	ND		9.4	2.1	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Carbazole	ND		4.7	0.28	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Chrysene	ND		9.4	0.31	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Dibenzo(a,h)anthracene	ND		9.4	0.40	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Dibenzofuran	ND		9.4	0.48	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Diethyl phthalate	ND		9.4	0.21	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Dimethyl phthalate	ND		9.4	0.34	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Di-n-butyl phthalate	0.55	J	9.4	0.29	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Di-n-octyl phthalate	ND		9.4	0.44	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Fluoranthene	ND		9.4	0.38	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Fluorene	ND		9.4	0.34	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Hexachlorobenzene	ND		9.4	0.48	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Hexachlorobutadiene	ND		9.4	0.64	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Hexachlorocyclopentadiene	ND		9.4	0.56	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Hexachloroethane	ND		9.4	0.56	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Indeno(1,2,3-cd)pyrene	ND		9.4	0.44	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Isophorone	ND		9.4	0.41	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Naphthalene	ND		9.4	0.72	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Nitrobenzene	ND		9.4	0.27	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
N-Nitrosodi-n-propylamine	ND		9.4	0.51	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
N-Nitrosodiphenylamine	ND		9.4	0.48	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Pentachlorophenol	ND		47	2.1	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Phenanthrene	0.46	J	9.4	0.42	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Phenol	ND		9.4	0.37	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C
Pyrene	ND		9.4	0.32	ug/L	1.00	10/09/10 17:47	MKP	10I1861	8270C

2,4,6-Tribromophenol	112 %		Surr Limits: (52-132%)				10/09/10 17:47	MKP	10I1861	8270C
2-Fluorobiphenyl	74 %		Surr Limits: (48-120%)				10/09/10 17:47	MKP	10I1861	8270C
2-Fluorophenol	40 %		Surr Limits: (20-120%)				10/09/10 17:47	MKP	10I1861	8270C
Nitrobenzene-d5	73 %		Surr Limits: (46-120%)				10/09/10 17:47	MKP	10I1861	8270C
Phenol-d5	29 %		Surr Limits: (16-120%)				10/09/10 17:47	MKP	10I1861	8270C
p-Terphenyl-d14	49 %		Surr Limits: (24-136%)				10/09/10 17:47	MKP	10I1861	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDD	0.23	J	0.24	0.043	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
4,4'-DDE	ND		0.24	0.055	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
4,4'-DDT	ND		0.24	0.052	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Aldrin	ND		0.24	0.031	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
alpha-BHC	0.18	J	0.24	0.031	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
alpha-Chlordane	ND		0.24	0.070	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
beta-BHC	0.13	J	0.24	0.12	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Chlordane	ND		2.4	0.14	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
delta-BHC	ND		0.24	0.048	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Dieldrin	ND		0.24	0.046	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Endosulfan I	ND		0.24	0.052	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Endosulfan II	0.14	J	0.24	0.057	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Endosulfan sulfate	ND		0.24	0.074	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Endrin	ND		0.24	0.065	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Endrin aldehyde	ND		0.24	0.077	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RT11555-03 (MW-3 - Water) - cont.

Sampled: 09/23/10 12:25

Recvd: 09/24/10 09:00

Organochlorine Pesticides by EPA Method 8081A - cont.

Endrin ketone	ND		0.24	0.057	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
gamma-BHC (Lindane)	ND		0.24	0.028	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
gamma-Chlordane	0.13	J	0.24	0.052	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Heptachlor	0.11	J	0.24	0.040	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Heptachlor epoxide	ND		0.24	0.025	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Methoxychlor	0.20	J	0.24	0.067	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A
Toxaphene	ND		2.4	0.57	ug/L	5.00	09/28/10 22:33	LMW	10I1862	8081A

Decachlorobiphenyl * Z Surr Limits: (15-139%) 09/28/10 22:33 LMW 10I1862 8081A

Tetrachloro-m-xylene 196 % Z1 Surr Limits: (30-139%) 09/28/10 22:33 LMW 10I1862 8081A

Polychlorinated Biphenyls by EPA Method 8082

Aroclor 1016	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:56	JxM	10I1863	8082
Aroclor 1221	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:56	JxM	10I1863	8082
Aroclor 1232	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:56	JxM	10I1863	8082
Aroclor 1242	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:56	JxM	10I1863	8082
Aroclor 1248	ND	QSU	0.47	0.17	ug/L	1.00	09/28/10 23:56	JxM	10I1863	8082
Aroclor 1254	ND	QSU	0.47	0.24	ug/L	1.00	09/28/10 23:56	JxM	10I1863	8082
Aroclor 1260	ND	QSU	0.47	0.24	ug/L	1.00	09/28/10 23:56	JxM	10I1863	8082

Decachlorobiphenyl 27 % QSU Surr Limits: (12-137%) 09/28/10 23:56 JxM 10I1863 8082

Tetrachloro-m-xylene 61 % QSU Surr Limits: (35-121%) 09/28/10 23:56 JxM 10I1863 8082

Total Metals by SW 846 Series Methods

Aluminum	ND		0.200	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Antimony	ND		0.0200	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Arsenic	ND		0.0100	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Barium	0.0985		0.0020	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Beryllium	ND		0.0020	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Cadmium	ND		0.0010	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Calcium	123		0.5	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Chromium	ND		0.0040	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Cobalt	ND		0.0040	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Copper	ND		0.0100	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Iron	ND		0.050	NR	mg/L	1.00	09/29/10 12:41	DAN	10I1960	6010B
Lead	ND		0.0050	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Magnesium	98.3		0.200	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Manganese	0.195		0.0030	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Nickel	0.0159		0.0100	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Potassium	10.0		0.500	NR	mg/L	1.00	09/29/10 12:41	DAN	10I1960	6010B
Selenium	ND		0.0150	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Silver	ND		0.0030	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Sodium	88.8		1.0	NR	mg/L	1.00	09/29/10 12:41	DAN	10I1960	6010B
Thallium	ND		0.0200	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Vanadium	ND		0.0050	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Zinc	ND		0.0100	NR	mg/L	1.00	09/28/10 23:19	MxM	10I1960	6010B
Mercury	ND		0.0002	NR	mg/L	1.00	09/30/10 12:32	JRK	10I2202	7470A

General Chemistry Parameters

Total Cyanide	ND	L	0.0100	NR	mg/L	1.00	10/01/10 15:06	RJF	10I2226	9012A
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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-04 (MW-4 - Water)						Sampled: 09/23/10 11:20		Recvd: 09/24/10 09:00		
<u>Volatile Organic Compounds by EPA 8260B</u>										
1,1,1-Trichloroethane	ND	D03	4.0	3.3	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,1,2,2-Tetrachloroethane	ND	D03	4.0	0.85	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,1,2-Trichloroethane	ND	D03	4.0	0.92	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D03	4.0	1.2	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,1-Dichloroethane	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,1-Dichloroethene	ND	D03	4.0	1.2	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,2,4-Trichlorobenzene	ND	D03	4.0	1.6	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,2-Dibromo-3-chloropropene	ND	D03	4.0	1.6	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,2-Dibromoethane	ND	D03	4.0	2.9	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,2-Dichlorobenzene	ND	D03	4.0	3.2	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,2-Dichloroethane	ND	D03	4.0	0.86	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,2-Dichloropropane	ND	D03	4.0	2.9	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,3-Dichlorobenzene	ND	D03	4.0	3.1	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,4-Dichlorobenzene	ND	D03	4.0	3.4	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
2-Butanone	ND	D03	40	5.3	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
2-Hexanone	ND	D03	20	5.0	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
4-Methyl-2-pentanone	ND	D03	20	8.4	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Acetone	ND	D03	40	12	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Benzene	ND	D03	4.0	1.6	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Bromodichloromethane	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Bromoform	ND	D03	4.0	1.0	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Bromomethane	ND	D03	4.0	2.8	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Carbon disulfide	ND	D03	4.0	0.78	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Carbon Tetrachloride	ND	D03	4.0	1.1	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Chlorobenzene	ND	D03	4.0	3.0	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Dibromochloromethane	ND	D03	4.0	1.3	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Chloroethane	ND	D03	4.0	1.3	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Chloroform	2.8	D03,J	4.0	1.3	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Chloromethane	ND	D03	4.0	1.4	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
cis-1,2-Dichloroethene	ND	D03	4.0	3.2	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
cis-1,3-Dichloropropene	ND	D03	4.0	1.4	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Cyclohexane	ND	D03	4.0	0.72	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Dichlorodifluoromethane	ND	D03	4.0	2.7	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Ethylbenzene	ND	D03	4.0	3.0	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Isopropylbenzene	ND	D03	4.0	3.2	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Methyl Acetate	ND	D03	4.0	2.0	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Methyl-t-Butyl Ether (MTBE)	ND	D03	4.0	0.64	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Methylcyclohexane	ND	D03	4.0	0.64	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Methylene Chloride	ND	D03	4.0	1.8	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Styrene	ND	D03	4.0	2.9	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Tetrachloroethene	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Toluene	ND	D03	4.0	2.0	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
trans-1,2-Dichloroethene	ND	D03	4.0	3.6	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
trans-1,3-Dichloropropene	ND	D03	4.0	1.5	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Trichloroethene	ND	D03	4.0	1.8	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Trichlorofluoromethane	ND	D03	4.0	3.5	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
Vinyl chloride	ND	D03	4.0	3.6	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-04 (MW-4 - Water) - cont.

Sampled: 09/23/10 11:20

Recvd: 09/24/10 09:00

Volatile Organic Compounds by EPA 8260B - cont.

Xylenes, total	ND	D03	8.0	2.6	ug/L	4.00	09/30/10 14:25	DHC	10I2207	8260B
1,2-Dichloroethane-d4	97 %	D03	Surr Limits: (66-137%)				09/30/10 14:25	DHC	10I2207	8260B
4-Bromofluorobenzene	106 %	D03	Surr Limits: (73-120%)				09/30/10 14:25	DHC	10I2207	8260B
Toluene-d8	108 %	D03	Surr Limits: (71-126%)				09/30/10 14:25	DHC	10I2207	8260B

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND		24	0.46	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2,4,6-Trichlorophenol	ND		9.5	0.58	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2,4-Dichlorophenol	ND		9.5	0.49	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2,4-Dimethylphenol	ND		9.5	0.48	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2,4-Dinitrophenol	ND		48	2.1	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2,4-Dinitrotoluene	ND		9.5	0.43	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2,6-Dinitrotoluene	ND		9.5	0.38	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2-Chloronaphthalene	ND		9.5	0.44	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2-Chlorophenol	ND		9.5	0.50	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2-Methylnaphthalene	ND		9.5	0.57	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2-Methylphenol	ND		9.5	0.38	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2-Nitroaniline	ND		48	0.40	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2-Nitrophenol	ND		9.5	0.46	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
3,3'-Dichlorobenzidine	ND		19	0.38	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
3-Nitroaniline	ND		48	0.46	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4,6-Dinitro-2-methylphenol	ND		48	2.1	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4-Bromophenyl phenyl ether	ND		9.5	0.43	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4-Chloro-3-methylphenol	ND		9.5	0.43	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4-Chloroaniline	ND		9.5	0.56	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4-Chlorophenyl phenyl ether	ND		9.5	0.33	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4-Methylphenol	ND		4.8	0.34	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4-Nitroaniline	ND		48	0.24	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
4-Nitrophenol	ND		48	1.4	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Acenaphthene	ND		9.5	0.39	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Acenaphthylene	ND		9.5	0.36	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Acetophenone	ND		9.5	0.51	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Anthracene	ND		9.5	0.27	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Atrazine	ND		9.5	0.44	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Benzaldehyde	ND		48	0.25	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Benzo(a)anthracene	ND		9.5	0.34	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Benzo(a)pyrene	ND		9.5	0.45	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Benzo(b)fluoranthene	ND		9.5	0.32	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Benzo(ghi)perylene	ND		9.5	0.33	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Benzo(k)fluoranthene	ND		9.5	0.70	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Biphenyl	ND		9.5	0.62	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Bis(2-chloroethoxy)methane	ND		9.5	0.33	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Bis(2-chloroethyl)ether	ND		9.5	0.38	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
2,2'-Oxybis(1-Chloropropene)	ND		9.5	0.50	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Bis(2-ethylhexyl)phthalate	ND		9.5	1.7	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-04 (MW-4 - Water) - cont.

Sampled: 09/23/10 11:20

Recvd: 09/24/10 09:00

Semivolatile Organics by GC/MS - cont.

Butyl benzyl phthalate	0.72	J	9.5	0.40	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Caprolactam	ND		9.5	2.1	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Carbazole	ND		4.8	0.29	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Chrysene	ND		9.5	0.31	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Dibenzo(a,h)anthracene	ND		9.5	0.40	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Dibenzofuran	ND		9.5	0.49	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Diethyl phthalate	1.5	J	9.5	0.21	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Dimethyl phthalate	ND		9.5	0.34	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Di-n-butyl phthalate	1.1	J	9.5	0.30	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Di-n-octyl phthalate	ND		9.5	0.45	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Fluoranthene	ND		9.5	0.38	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Fluorene	ND		9.5	0.34	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Hexachlorobenzene	ND		9.5	0.49	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Hexachlorobutadiene	ND		9.5	0.65	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Hexachlorocyclopentadiene	ND		9.5	0.56	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Hexachloroethane	ND		9.5	0.56	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Indeno(1,2,3-cd)pyrene	ND		9.5	0.45	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Isophorone	ND		9.5	0.41	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Naphthalene	ND		9.5	0.72	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Nitrobenzene	ND		9.5	0.28	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
N-Nitrosodi-n-propylamine	ND		9.5	0.51	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
N-Nitrosodiphenylamine	ND		9.5	0.49	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Pentachlorophenol	ND		48	2.1	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Phenanthrene	ND		9.5	0.42	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Phenol	ND		9.5	0.37	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C
Pyrene	ND		9.5	0.32	ug/L	1.00	10/09/10 18:11	MKP	10I1861	8270C

2,4,6-Tribromophenol	115 %		Surr Limits: (52-132%)				10/09/10 18:11	MKP	10I1861	8270C
2-Fluorobiphenyl	84 %		Surr Limits: (48-120%)				10/09/10 18:11	MKP	10I1861	8270C
2-Fluorophenol	48 %		Surr Limits: (20-120%)				10/09/10 18:11	MKP	10I1861	8270C
Nitrobenzene-d5	88 %		Surr Limits: (46-120%)				10/09/10 18:11	MKP	10I1861	8270C
Phenol-d5	33 %		Surr Limits: (16-120%)				10/09/10 18:11	MKP	10I1861	8270C
p-Terphenyl-d14	54 %		Surr Limits: (24-136%)				10/09/10 18:11	MKP	10I1861	8270C

Organochlorine Pesticides by EPA Method 8081A

4,4'-DDD	0.25		0.24	0.043	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
4,4'-DDE	ND		0.24	0.055	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
4,4'-DDT	0.20	J	0.24	0.052	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Aldrin	ND		0.24	0.031	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
alpha-BHC	ND		0.24	0.031	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
alpha-Chlordane	ND		0.24	0.070	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
beta-BHC	0.21	J	0.24	0.12	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Chlordane	ND		2.4	0.14	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
delta-BHC	ND		0.24	0.048	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Dieldrin	0.14	J	0.24	0.046	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endosulfan I	0.070	J	0.24	0.052	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endosulfan II	0.14	J	0.24	0.057	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endosulfan sulfate	0.092	J	0.24	0.074	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endrin	ND		0.24	0.065	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
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Sample ID: RTI1555-04 (MW-4 - Water) - cont.

Sampled: 09/23/10 11:20

Recvd: 09/24/10 09:00

Organochlorine Pesticides by EPA Method 8081A - cont.

Endrin aldehyde	ND		0.24	0.077	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Endrin ketone	ND		0.24	0.057	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
gamma-BHC (Lindane)	ND		0.24	0.028	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
gamma-Chlordane	0.15	J	0.24	0.052	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Heptachlor	0.14	J	0.24	0.040	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Heptachlor epoxide	ND		0.24	0.025	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Methoxychlor	0.16	J	0.24	0.067	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
Toxaphene	ND		2.4	0.57	ug/L	5.00	09/28/10 23:09	LMW	10I1862	8081A
<i>Decachlorobiphenyl</i>	14 %	Z	<i>Surr Limits: (15-139%)</i>				09/28/10 23:09	LMW	10I1862	8081A
<i>Tetrachloro-m-xylene</i>	188 %	Z1	<i>Surr Limits: (30-139%)</i>				09/28/10 23:09	LMW	10I1862	8081A

Polychlorinated Biphenyls by EPA Method 8082

Aroclor 1016	ND	QSU	0.47	0.17	ug/L	1.00	09/29/10 00:14	JxM	10I1863	8082
Aroclor 1221	ND	QSU	0.47	0.17	ug/L	1.00	09/29/10 00:14	JxM	10I1863	8082
Aroclor 1232	ND	QSU	0.47	0.17	ug/L	1.00	09/29/10 00:14	JxM	10I1863	8082
Aroclor 1242	ND	QSU	0.47	0.17	ug/L	1.00	09/29/10 00:14	JxM	10I1863	8082
Aroclor 1248	ND	QSU	0.47	0.17	ug/L	1.00	09/29/10 00:14	JxM	10I1863	8082
Aroclor 1254	ND	QSU	0.47	0.24	ug/L	1.00	09/29/10 00:14	JxM	10I1863	8082
Aroclor 1260	ND	QSU	0.47	0.24	ug/L	1.00	09/29/10 00:14	JxM	10I1863	8082
<i>Decachlorobiphenyl</i>	46 %	QSU	<i>Surr Limits: (12-137%)</i>				09/29/10 00:14	JxM	10I1863	8082
<i>Tetrachloro-m-xylene</i>	73 %	QSU	<i>Surr Limits: (35-121%)</i>				09/29/10 00:14	JxM	10I1863	8082

Total Metals by SW 846 Series Methods

Aluminum	ND		0.200	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Antimony	ND		0.0200	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Arsenic	ND		0.0100	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Barium	0.0687		0.0020	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Beryllium	ND		0.0020	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Cadmium	ND		0.0010	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Calcium	150		0.5	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Chromium	ND		0.0040	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Cobalt	ND		0.0040	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Copper	ND		0.0100	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Iron	ND		0.050	NR	mg/L	1.00	09/29/10 12:47	DAN	10I1960	6010B
Lead	ND		0.0050	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Magnesium	151		0.200	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Manganese	0.315		0.0030	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Nickel	ND		0.0100	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Potassium	12.2		0.500	NR	mg/L	1.00	09/29/10 12:47	DAN	10I1960	6010B
Selenium	ND		0.0150	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Silver	ND		0.0030	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Sodium	34.4		1.0	NR	mg/L	1.00	09/29/10 12:47	DAN	10I1960	6010B
Thallium	ND		0.0200	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Vanadium	ND		0.0050	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Zinc	ND		0.0100	NR	mg/L	1.00	09/28/10 23:21	MxM	10I1960	6010B
Mercury	ND		0.0002	NR	mg/L	1.00	09/30/10 12:33	JRK	10I2202	7470A

General Chemistry Parameters

TestAmerica Buffalo - 10 Hazelwood Drive Amherst, NY 14228 tel 716-691-2600 fax 716-691-7991

www.testamericainc.com

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-04 (MW-4 - Water) - cont.					Sampled: 09/23/10 11:20			Recvd: 09/24/10 09:00		
<u>General Chemistry Parameters - cont.</u>										
Total Cyanide	ND	L	0.0100	NR	mg/L	1.00	10/01/10 15:07	RJF	10I2226	9012A

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTI1555-05 (TRIP BLANK - Water)						Sampled: 09/24/10		Recvd: 09/24/10 15:10		
<u>Volatile Organic Compounds by EPA 8260B</u>										
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,2-Dibromo-3-chloropropane	ND		1.0	0.39	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
2-Butanone	ND		10	1.3	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Acetone	ND		10	3.0	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Bromoform	ND		1.0	0.26	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Dibromochloromethane	ND		1.0	0.32	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Cyclohexane	ND		1.0	0.18	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Dichlorodifluoromethane	ND		1.0	0.68	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RT11555-05 (TRIP BLANK - Water) - cont.						Sampled: 09/24/10		Recvd: 09/24/10 15:10		
<u>Volatile Organic Compounds by EPA 8260B - cont.</u>										
Xylenes, total	ND		2.0	0.66	ug/L	1.00	09/30/10 01:13	NMD	10I2169	8260B
1,2-Dichloroethane-d4	95 %		Surr Limits: (66-137%)				09/30/10 01:13	NMD	10I2169	8260B
4-Bromofluorobenzene	105 %		Surr Limits: (73-120%)				09/30/10 01:13	NMD	10I2169	8260B
Toluene-d8	104 %		Surr Limits: (71-126%)				09/30/10 01:13	NMD	10I2169	8260B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
General Chemistry Parameters									
9012A	10I2226	RTI1555-01	50.00	mL	50.00	mL	09/30/10 14:09	JME	Cn Digestion
9012A	10I2226	RTI1555-02	50.00	mL	50.00	mL	09/30/10 14:09	JME	Cn Digestion
9012A	10I2226	RTI1555-03	50.00	mL	50.00	mL	09/30/10 14:09	JME	Cn Digestion
9012A	10I2226	RTI1555-04	50.00	mL	50.00	mL	09/30/10 14:09	JME	Cn Digestion
Organochlorine Pesticides by EPA Method 8081A									
8081A	10I1862	RTI1555-01	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
8081A	10I1862	RTI1555-02	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
8081A	10I1862	RTI1555-03	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
8081A	10I1862	RTI1555-04	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
Polychlorinated Biphenyls by EPA Method 8082									
8082	10I1863	RTI1555-01	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
8082	10I1863	RTI1555-02	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
8082	10I1863	RTI1555-03	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
8082	10I1863	RTI1555-04	1,060.00	mL	10.00	mL	09/25/10 09:00	BWM	3510C GC
Semivolatile Organics by GC/MS									
8270C	10I1861	RTI1555-01	1,040.00	mL	1.00	mL	09/25/10 09:00	BWM	3510C MB
8270C	10I1861	RTI1555-04	1,050.00	mL	1.00	mL	09/25/10 09:00	BWM	3510C MB
8270C	10I1861	RTI1555-02	1,060.00	mL	1.00	mL	09/25/10 09:00	BWM	3510C MB
8270C	10I1861	RTI1555-03	1,060.00	mL	1.00	mL	09/25/10 09:00	BWM	3510C MB
Total Metals by SW 846 Series Methods									
6010B	10I1960	RTI1555-01	50.00	mL	50.00	mL	09/28/10 10:30	MDM	3005A
6010B	10I1960	RTI1555-02	50.00	mL	50.00	mL	09/28/10 10:30	MDM	3005A
6010B	10I1960	RTI1555-03	50.00	mL	50.00	mL	09/28/10 10:30	MDM	3005A
6010B	10I1960	RTI1555-04	50.00	mL	50.00	mL	09/28/10 10:30	MDM	3005A
7470A	10I2202	RTI1555-01	30.00	mL	50.00	mL	09/30/10 11:15	JRK	7470A
7470A	10I2202	RTI1555-02	30.00	mL	50.00	mL	09/30/10 11:15	JRK	7470A
7470A	10I2202	RTI1555-03	30.00	mL	50.00	mL	09/30/10 11:15	JRK	7470A
7470A	10I2202	RTI1555-04	30.00	mL	50.00	mL	09/30/10 11:15	JRK	7470A
Volatile Organic Compounds by EPA 8260B									
8260B	10I2207	RTI1555-03	5.00	mL	5.00	mL	09/30/10 10:27	DHC	5030B MS
8260B	10I2207	RTI1555-04	5.00	mL	5.00	mL	09/30/10 10:27	DHC	5030B MS
8260B	10I2169	RTI1555-01	5.00	mL	5.00	mL	09/29/10 17:31	NMD	5030B MS
8260B	10I2169	RTI1555-02	5.00	mL	5.00	mL	09/29/10 17:31	NMD	5030B MS
8260B	10I2169	RTI1555-05	5.00	mL	5.00	mL	09/29/10 17:31	NMD	5030B MS

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Blank Analyzed: 09/29/10 (Lab Number:10I2169-BLK1, Batch: 10I2169)											
1,1,1-Trichloroethane			1.0	0.82	ug/L	ND					
1,1,2,2-Tetrachloroethane			1.0	0.21	ug/L	ND					
1,1,2-Trichloroethane			1.0	0.23	ug/L	ND					
1,1,2-Trichloro-1,2,2-trifluoroethane			1.0	0.31	ug/L	ND					
1,1-Dichloroethane			1.0	0.38	ug/L	ND					
1,1-Dichloroethene			1.0	0.29	ug/L	ND					
1,2,4-Trichlorobenzene			1.0	0.41	ug/L	ND					
1,2-Dibromo-3-chloropropane			1.0	0.39	ug/L	ND					
1,2-Dibromoethane			1.0	0.73	ug/L	ND					
1,2-Dichlorobenzene			1.0	0.79	ug/L	ND					
1,2-Dichloroethane			1.0	0.21	ug/L	ND					
1,2-Dichloropropane			1.0	0.72	ug/L	ND					
1,3-Dichlorobenzene			1.0	0.78	ug/L	ND					
1,4-Dichlorobenzene			1.0	0.84	ug/L	ND					
2-Butanone			10	1.3	ug/L	ND					
2-Hexanone			5.0	1.2	ug/L	ND					
4-Methyl-2-pentanone			5.0	2.1	ug/L	ND					
Acetone			10	3.0	ug/L	ND					
Benzene			1.0	0.41	ug/L	ND					
Bromodichloromethane			1.0	0.39	ug/L	ND					
Bromoform			1.0	0.26	ug/L	ND					
Bromomethane			1.0	0.69	ug/L	ND					
Carbon disulfide			1.0	0.19	ug/L	ND					
Carbon Tetrachloride			1.0	0.27	ug/L	ND					
Chlorobenzene			1.0	0.75	ug/L	ND					
Dibromochloromethane			1.0	0.32	ug/L	ND					
Chloroethane			1.0	0.32	ug/L	ND					
Chloroform			1.0	0.34	ug/L	ND					
Chloromethane			1.0	0.35	ug/L	ND					
cis-1,2-Dichloroethene			1.0	0.81	ug/L	ND					
cis-1,3-Dichloropropene			1.0	0.36	ug/L	ND					
Cyclohexane			1.0	0.18	ug/L	ND					
Dichlorodifluoromethane			1.0	0.68	ug/L	ND					
Ethylbenzene			1.0	0.74	ug/L	ND					
Isopropylbenzene			1.0	0.79	ug/L	ND					
Methyl Acetate			1.0	0.50	ug/L	ND					

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Blank Analyzed: 09/29/10 (Lab Number:10I2169-BLK1, Batch: 10I2169)											
Methyl-t-Butyl Ether (MTBE)			1.0	0.16	ug/L	ND					
Methylcyclohexane			1.0	0.16	ug/L	ND					
Methylene Chloride			1.0	0.44	ug/L	ND					
Styrene			1.0	0.73	ug/L	ND					
Tetrachloroethene			1.0	0.36	ug/L	ND					
Toluene			1.0	0.51	ug/L	ND					
trans-1,2-Dichloroethene			1.0	0.90	ug/L	ND					
trans-1,3-Dichloropropene			1.0	0.37	ug/L	ND					
Trichloroethene			1.0	0.46	ug/L	ND					
Trichlorofluoromethane			1.0	0.88	ug/L	ND					
Vinyl chloride			1.0	0.90	ug/L	ND					
Xylenes, total			2.0	0.66	ug/L	ND					
<i>Surrogate:</i>							95	66-137			
<i>1,2-Dichloroethane-d4</i>											
<i>Surrogate:</i>							106	73-120			
<i>4-Bromofluorobenzene</i>											
<i>Surrogate: Toluene-d8</i>							105	71-126			
LCS Analyzed: 09/29/10 (Lab Number:10I2169-BS1, Batch: 10I2169)											
1,1,1-Trichloroethane			1.0	0.82	ug/L	ND		73-126			
1,1,2,2-Tetrachloroethane			1.0	0.21	ug/L	ND		70-126			
1,1,2-Trichloroethane			1.0	0.23	ug/L	ND		76-122			
1,1,2-Trichloro-1,2,2-trifluoroethane			1.0	0.31	ug/L	ND		60-140			
1,1-Dichloroethane		25.0	1.0	0.38	ug/L	23.0	92	71-129			
1,1-Dichloroethene		25.0	1.0	0.29	ug/L	22.7	91	65-138			
1,2,4-Trichlorobenzene			1.0	0.41	ug/L	ND		70-122			
1,2-Dibromo-3-chloropropane			1.0	0.39	ug/L	ND		56-134			
1,2-Dibromoethane			1.0	0.73	ug/L	ND		77-120			
1,2-Dichlorobenzene		25.0	1.0	0.79	ug/L	24.5	98	77-120			
1,2-Dichloroethane		25.0	1.0	0.21	ug/L	22.3	89	75-127			
1,2-Dichloropropane			1.0	0.72	ug/L	ND		76-120			
1,3-Dichlorobenzene			1.0	0.78	ug/L	ND		77-120			
1,4-Dichlorobenzene			1.0	0.84	ug/L	ND		75-120			
2-Butanone			10	1.3	ug/L	ND		57-140			
2-Hexanone			5.0	1.2	ug/L	ND		65-127			
4-Methyl-2-pentanone			5.0	2.1	ug/L	ND		71-125			
Acetone			10	3.0	ug/L	ND		56-142			

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
LCS Analyzed: 09/29/10 (Lab Number:10I2169-BS1, Batch: 10I2169)											
Benzene		25.0	1.0	0.41	ug/L	23.3	93	71-124			
Bromodichloromethane			1.0	0.39	ug/L	ND		80-122			
Bromoform			1.0	0.26	ug/L	ND		66-128			
Bromomethane			1.0	0.69	ug/L	ND		36-150			
Carbon disulfide			1.0	0.19	ug/L	ND		59-134			
Carbon Tetrachloride			1.0	0.27	ug/L	ND		72-134			
Chlorobenzene		25.0	1.0	0.75	ug/L	24.7	99	72-120			
Dibromochloromethane			1.0	0.32	ug/L	ND		75-125			
Chloroethane			1.0	0.32	ug/L	ND		69-136			
Chloroform			1.0	0.34	ug/L	ND		73-127			
Chloromethane			1.0	0.35	ug/L	ND		49-142			
cis-1,2-Dichloroethene		25.0	1.0	0.81	ug/L	23.1	92	74-124			
cis-1,3-Dichloropropene			1.0	0.36	ug/L	ND		74-124			
Cyclohexane			1.0	0.18	ug/L	ND		70-130			
Dichlorodifluoromethane			1.0	0.68	ug/L	ND		33-157			
Ethylbenzene		25.0	1.0	0.74	ug/L	24.2	97	77-123			
Isopropylbenzene			1.0	0.79	ug/L	ND		77-122			
Methyl Acetate			1.0	0.50	ug/L	ND		60-140			
Methyl-t-Butyl Ether (MTBE)		25.0	1.0	0.16	ug/L	19.4	78	64-127			
Methylcyclohexane			1.0	0.16	ug/L	ND		60-140			
Methylene Chloride			1.0	0.44	ug/L	ND		57-132			
Styrene			1.0	0.73	ug/L	ND		70-130			
Tetrachloroethene		25.0	1.0	0.36	ug/L	25.6	102	74-122			
Toluene		25.0	1.0	0.51	ug/L	23.0	92	70-122			
trans-1,2-Dichloroethene		25.0	1.0	0.90	ug/L	23.7	95	73-127			
trans-1,3-Dichloropropene			1.0	0.37	ug/L	ND		72-123			
Trichloroethene		25.0	1.0	0.46	ug/L	24.0	96	74-123			
Trichlorofluoromethane			1.0	0.88	ug/L	ND		62-152			
Vinyl chloride			1.0	0.90	ug/L	ND		65-133			
Xylenes, total		75.0	2.0	0.66	ug/L	72.7	97	76-122			
Surrogate:					ug/L		96	66-137			
1,2-Dichloroethane-d4					ug/L		108	73-120			
Surrogate:					ug/L						
4-Bromofluorobenzene					ug/L		104	71-126			
Surrogate: Toluene-d8					ug/L						

Matrix Spike Analyzed: 09/30/10 (Lab Number:10I2169-MS1, Batch: 10I2169)

QC Source Sample: RTI1555-02

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Matrix Spike Analyzed: 09/30/10 (Lab Number:10I2169-MS1, Batch: 10I2169)											
QC Source Sample: RT11555-02											
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L	ND		73-126			D03
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L	ND		70-126			D03
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L	ND		76-122			D03
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.5	ug/L	ND		60-140			D03
1,1-Dichloroethane	ND	125	5.0	1.9	ug/L	117	94	71-129			D03
1,1-Dichloroethene	ND	125	5.0	1.5	ug/L	118	94	65-138			D03
1,2,4-Trichlorobenzene	ND		5.0	2.0	ug/L	ND		70-122			D03
1,2-Dibromo-3-chloropropane	ND		5.0	2.0	ug/L	ND		56-134			D03
1,2-Dibromoethane	ND		5.0	3.6	ug/L	ND		77-120			D03
1,2-Dichlorobenzene	ND	125	5.0	4.0	ug/L	123	98	77-120			D03
1,2-Dichloroethane	ND	125	5.0	1.1	ug/L	116	93	75-127			D03
1,2-Dichloropropane	ND		5.0	3.6	ug/L	ND		76-120			D03
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L	ND		77-120			D03
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L	ND		75-120			D03
2-Butanone	ND		50	6.6	ug/L	ND		57-140			D03
2-Hexanone	ND		25	6.2	ug/L	ND		65-127			D03
4-Methyl-2-pentanone	ND		25	10	ug/L	ND		71-125			D03
Acetone	ND		50	15	ug/L	ND		56-142			D03
Benzene	37.8	125	5.0	2.0	ug/L	153	92	71-124			D03
Bromodichloromethane	ND		5.0	1.9	ug/L	ND		80-122			D03
Bromoform	ND		5.0	1.3	ug/L	ND		66-128			D03
Bromomethane	ND		5.0	3.4	ug/L	ND		36-150			D03
Carbon disulfide	ND		5.0	0.97	ug/L	ND		59-134			D03
Carbon Tetrachloride	ND		5.0	1.3	ug/L	ND		72-134			D03
Chlorobenzene	ND	125	5.0	3.8	ug/L	125	100	72-120			D03
Dibromochloromethane	ND		5.0	1.6	ug/L	ND		75-125			D03
Chloroethane	ND		5.0	1.6	ug/L	ND		69-136			D03
Chloroform	4.20		5.0	1.7	ug/L	4.15		73-127			D03,J
Chloromethane	ND		5.0	1.7	ug/L	ND		49-142			D03
cis-1,2-Dichloroethene	ND	125	5.0	4.0	ug/L	116	93	74-124			D03
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L	ND		74-124			D03
Cyclohexane	ND		5.0	0.90	ug/L	ND		70-130			D03
Dichlorodifluoromethane	ND		5.0	3.4	ug/L	ND		33-157			D03
Ethylbenzene	39.2	125	5.0	3.7	ug/L	156	94	77-123			D03
Isopropylbenzene	ND		5.0	4.0	ug/L	ND		77-122			D03
Methyl Acetate	ND		5.0	2.5	ug/L	ND		60-140			D03

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Volatile Organic Compounds by EPA 8260B

Matrix Spike Analyzed: 09/30/10 (Lab Number:10I2169-MS1, Batch: 10I2169)

QC Source Sample: RT11555-02

Methyl-t-Butyl Ether (MTBE)	ND	125	5.0	0.80	ug/L	103	83	64-127			D03
Methylcyclohexane	ND		5.0	0.80	ug/L	ND		60-140			D03
Methylene Chloride	ND		5.0	2.2	ug/L	ND		57-132			D03
Styrene	ND		5.0	3.6	ug/L	ND		70-130			D03
Tetrachloroethene	ND	125	5.0	1.8	ug/L	124	99	74-122			D03
Toluene	18.0	125	5.0	2.6	ug/L	133	92	70-122			D03
trans-1,2-Dichloroethene	ND	125	5.0	4.5	ug/L	120	96	73-127			D03
trans-1,3-Dichloropropene	ND		5.0	1.8	ug/L	ND		72-123			D03
Trichloroethene	ND	125	5.0	2.3	ug/L	120	96	74-123			D03
Trichlorofluoromethane	ND		5.0	4.4	ug/L	ND		62-152			D03
Vinyl chloride	ND		5.0	4.5	ug/L	ND		65-133			D03
Xylenes, total	96.6	375	10	3.3	ug/L	454	95	76-122			D03
Surrogate: 1,2-Dichloroethane-d4					ug/L		96	66-137			D03
Surrogate: 4-Bromofluorobenzene					ug/L		106	73-120			D03
Surrogate: Toluene-d8					ug/L		103	71-126			D03

Matrix Spike Dup Analyzed: 09/30/10 (Lab Number:10I2169-MSD1, Batch: 10I2169)

QC Source Sample: RT11555-02

1,1,1-Trichloroethane	ND		5.0	4.1	ug/L	ND		73-126		15	D03
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L	ND		70-126		15	D03
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L	ND		76-122		15	D03
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.5	ug/L	ND		60-140		20	D03
1,1-Dichloroethane	ND	125	5.0	1.9	ug/L	119	95	71-129	1	20	D03
1,1-Dichloroethene	ND	125	5.0	1.5	ug/L	121	97	65-138	3	16	D03
1,2,4-Trichlorobenzene	ND		5.0	2.0	ug/L	ND		70-122		20	D03
1,2-Dibromo-3-chloropropane	ND		5.0	2.0	ug/L	ND		56-134		15	D03
1,2-Dibromoethane	ND		5.0	3.6	ug/L	ND		77-120		15	D03
1,2-Dichlorobenzene	ND	125	5.0	4.0	ug/L	126	101	77-120	3	20	D03
1,2-Dichloroethane	ND	125	5.0	1.1	ug/L	118	94	75-127	2	20	D03
1,2-Dichloropropane	ND		5.0	3.6	ug/L	ND		76-120		20	D03
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L	ND		77-120		20	D03
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L	ND		75-120		20	D03
2-Butanone	ND		50	6.6	ug/L	ND		57-140		20	D03
2-Hexanone	ND		25	6.2	ug/L	ND		65-127		15	D03

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Matrix Spike Dup Analyzed: 09/30/10 (Lab Number:10I2169-MSD1, Batch: 10I2169)											
QC Source Sample: RT11555-02											
4-Methyl-2-pentanone	ND		25	10	ug/L	ND		71-125		35	D03
Acetone	ND		50	15	ug/L	ND		56-142		15	D03
Benzene	37.8	125	5.0	2.0	ug/L	155	94	71-124	1	13	D03
Bromodichloromethane	ND		5.0	1.9	ug/L	ND		80-122		15	D03
Bromoform	ND		5.0	1.3	ug/L	ND		66-128		15	D03
Bromomethane	ND		5.0	3.4	ug/L	ND		36-150		15	D03
Carbon disulfide	ND		5.0	0.97	ug/L	ND		59-134		15	D03
Carbon Tetrachloride	ND		5.0	1.3	ug/L	ND		72-134		15	D03
Chlorobenzene	ND	125	5.0	3.8	ug/L	127	102	72-120	1	25	D03
Dibromochloromethane	ND		5.0	1.6	ug/L	ND		75-125		15	D03
Chloroethane	ND		5.0	1.6	ug/L	ND		69-136		15	D03
Chloroform	4.20		5.0	1.7	ug/L	4.15		73-127	0	20	D03,J
Chloromethane	ND		5.0	1.7	ug/L	ND		49-142		15	D03
cis-1,2-Dichloroethene	ND	125	5.0	4.0	ug/L	121	97	74-124	4	15	D03
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L	ND		74-124		15	D03
Cyclohexane	ND		5.0	0.90	ug/L	ND		70-130		20	D03
Dichlorodifluoromethane	ND		5.0	3.4	ug/L	ND		33-157		20	D03
Ethylbenzene	39.2	125	5.0	3.7	ug/L	160	96	77-123	2	15	D03
Isopropylbenzene	ND		5.0	4.0	ug/L	ND		77-122		20	D03
Methyl Acetate	ND		5.0	2.5	ug/L	ND		60-140		20	D03
Methyl-t-Butyl Ether (MTBE)	ND	125	5.0	0.80	ug/L	103	82	64-127	0.4	37	D03
Methylcyclohexane	ND		5.0	0.80	ug/L	ND		60-140		20	D03
Methylene Chloride	ND		5.0	2.2	ug/L	ND		57-132		15	D03
Styrene	ND		5.0	3.6	ug/L	ND		70-130		20	D03
Tetrachloroethene	ND	125	5.0	1.8	ug/L	128	102	74-122	3	20	D03
Toluene	18.0	125	5.0	2.6	ug/L	137	95	70-122	2	15	D03
trans-1,2-Dichloroethene	ND	125	5.0	4.5	ug/L	122	98	73-127	1	20	D03
trans-1,3-Dichloropropene	ND		5.0	1.8	ug/L	ND		72-123		15	D03
Trichloroethene	ND	125	5.0	2.3	ug/L	122	98	74-123	2	16	D03
Trichlorofluoromethane	ND		5.0	4.4	ug/L	ND		62-152		20	D03
Vinyl chloride	ND		5.0	4.5	ug/L	ND		65-133		15	D03
Xylenes, total	96.6	375	10	3.3	ug/L	462	97	76-122	2	16	D03

Surrogate:	ug/L	97	66-137	D03
1,2-Dichloroethane-d4				
Surrogate:	ug/L	106	73-120	D03
4-Bromofluorobenzene				
Surrogate: Toluene-d8	ug/L	102	71-126	D03

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

Volatile Organic Compounds by EPA 8260B

Blank Analyzed: 09/30/10 (Lab Number:10I2207-BLK1, Batch: 10I2207)

1,1,1-Trichloroethane	1.0	0.82	ug/L	ND
1,1,2,2-Tetrachloroethane	1.0	0.21	ug/L	ND
1,1,2-Trichloroethane	1.0	0.23	ug/L	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	0.31	ug/L	ND
1,1-Dichloroethane	1.0	0.38	ug/L	ND
1,1-Dichloroethene	1.0	0.29	ug/L	ND
1,2,4-Trichlorobenzene	1.0	0.41	ug/L	ND
1,2-Dibromo-3-chloropropane	1.0	0.39	ug/L	ND
1,2-Dibromoethane	1.0	0.73	ug/L	ND
1,2-Dichlorobenzene	1.0	0.79	ug/L	ND
1,2-Dichloroethane	1.0	0.21	ug/L	ND
1,2-Dichloropropane	1.0	0.72	ug/L	ND
1,3-Dichlorobenzene	1.0	0.78	ug/L	ND
1,4-Dichlorobenzene	1.0	0.84	ug/L	ND
2-Butanone	10	1.3	ug/L	ND
2-Hexanone	5.0	1.2	ug/L	ND
4-Methyl-2-pentanone	5.0	2.1	ug/L	ND
Acetone	10	3.0	ug/L	ND
Benzene	1.0	0.41	ug/L	ND
Bromodichloromethane	1.0	0.39	ug/L	ND
Bromoform	1.0	0.26	ug/L	ND
Bromomethane	1.0	0.69	ug/L	ND
Carbon disulfide	1.0	0.19	ug/L	ND
Carbon Tetrachloride	1.0	0.27	ug/L	ND
Chlorobenzene	1.0	0.75	ug/L	ND
Dibromochloromethane	1.0	0.32	ug/L	ND
Chloroethane	1.0	0.32	ug/L	ND
Chloroform	1.0	0.34	ug/L	ND
Chloromethane	1.0	0.35	ug/L	ND
cis-1,2-Dichloroethene	1.0	0.81	ug/L	ND
cis-1,3-Dichloropropene	1.0	0.36	ug/L	ND
Cyclohexane	1.0	0.18	ug/L	ND
Dichlorodifluoromethane	1.0	0.68	ug/L	ND
Ethylbenzene	1.0	0.74	ug/L	ND
Isopropylbenzene	1.0	0.79	ug/L	ND
Methyl Acetate	1.0	0.50	ug/L	ND
Methyl-t-Butyl Ether (MTBE)	1.0	0.16	ug/L	ND
Methylcyclohexane	1.0	0.16	ug/L	ND

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
Blank Analyzed: 09/30/10 (Lab Number:10I2207-BLK1, Batch: 10I2207)											
Methylene Chloride			1.0	0.44	ug/L	ND					
Styrene			1.0	0.73	ug/L	ND					
Tetrachloroethene			1.0	0.36	ug/L	ND					
Toluene			1.0	0.51	ug/L	ND					
trans-1,2-Dichloroethene			1.0	0.90	ug/L	ND					
trans-1,3-Dichloropropene			1.0	0.37	ug/L	ND					
Trichloroethene			1.0	0.46	ug/L	ND					
Trichlorofluoromethane			1.0	0.88	ug/L	ND					
Vinyl chloride			1.0	0.90	ug/L	ND					
Xylenes, total			2.0	0.66	ug/L	ND					
Surrogate:											
1,2-Dichloroethane-d4					ug/L		95	66-137			
Surrogate:											
4-Bromofluorobenzene					ug/L		106	73-120			
Surrogate: Toluene-d8											
					ug/L		107	71-126			
LCS Analyzed: 09/30/10 (Lab Number:10I2207-BS1, Batch: 10I2207)											
1,1,1-Trichloroethane			1.0	0.82	ug/L	ND		73-126			
1,1,2,2-Tetrachloroethane			1.0	0.21	ug/L	ND		70-126			
1,1,2-Trichloroethane			1.0	0.23	ug/L	ND		76-122			
1,1,2-Trichloro-1,2,2-trifluoroethane			1.0	0.31	ug/L	ND		60-140			
1,1-Dichloroethane		25.0	1.0	0.38	ug/L	22.1	88	71-129			
1,1-Dichloroethene		25.0	1.0	0.29	ug/L	22.6	90	65-138			
1,2,4-Trichlorobenzene			1.0	0.41	ug/L	ND		70-122			
1,2-Dibromo-3-chloropropane			1.0	0.39	ug/L	ND		56-134			
1,2-Dibromoethane			1.0	0.73	ug/L	ND		77-120			
1,2-Dichlorobenzene		25.0	1.0	0.79	ug/L	24.1	96	77-120			
1,2-Dichloroethane		25.0	1.0	0.21	ug/L	22.1	88	75-127			
1,2-Dichloropropane			1.0	0.72	ug/L	ND		76-120			
1,3-Dichlorobenzene			1.0	0.78	ug/L	ND		77-120			
1,4-Dichlorobenzene			1.0	0.84	ug/L	ND		75-120			
2-Butanone			10	1.3	ug/L	ND		57-140			
2-Hexanone			5.0	1.2	ug/L	ND		65-127			
4-Methyl-2-pentanone			5.0	2.1	ug/L	ND		71-125			
Acetone			10	3.0	ug/L	ND		56-142			
Benzene		25.0	1.0	0.41	ug/L	22.1	88	71-124			
Bromodichloromethane			1.0	0.39	ug/L	ND		80-122			

Benchmark Environmental & Engineering Science
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Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Volatile Organic Compounds by EPA 8260B</u>											
LCS Analyzed: 09/30/10 (Lab Number:10I2207-BS1, Batch: 10I2207)											
Bromoform			1.0	0.26	ug/L	ND		66-128			
Bromomethane			1.0	0.69	ug/L	ND		36-150			
Carbon disulfide			1.0	0.19	ug/L	ND		59-134			
Carbon Tetrachloride			1.0	0.27	ug/L	ND		72-134			
Chlorobenzene		25.0	1.0	0.75	ug/L	24.1	96	72-120			
Dibromochloromethane			1.0	0.32	ug/L	ND		75-125			
Chloroethane			1.0	0.32	ug/L	ND		69-136			
Chloroform			1.0	0.34	ug/L	ND		73-127			
Chloromethane			1.0	0.35	ug/L	ND		49-142			
cis-1,2-Dichloroethene		25.0	1.0	0.81	ug/L	22.2	89	74-124			
cis-1,3-Dichloropropene			1.0	0.36	ug/L	ND		74-124			
Cyclohexane			1.0	0.18	ug/L	ND		70-130			
Dichlorodifluoromethane			1.0	0.68	ug/L	ND		33-157			
Ethylbenzene		25.0	1.0	0.74	ug/L	23.2	93	77-123			
Isopropylbenzene			1.0	0.79	ug/L	ND		77-122			
Methyl Acetate			1.0	0.50	ug/L	ND		60-140			
Methyl-t-Butyl Ether (MTBE)		25.0	1.0	0.16	ug/L	19.0	76	64-127			
Methylcyclohexane			1.0	0.16	ug/L	ND		60-140			
Methylene Chloride			1.0	0.44	ug/L	ND		57-132			
Styrene			1.0	0.73	ug/L	ND		70-130			
Tetrachloroethene		25.0	1.0	0.36	ug/L	24.6	99	74-122			
Toluene		25.0	1.0	0.51	ug/L	22.2	89	70-122			
trans-1,2-Dichloroethene		25.0	1.0	0.90	ug/L	22.5	90	73-127			
trans-1,3-Dichloropropene			1.0	0.37	ug/L	ND		72-123			
Trichloroethene		25.0	1.0	0.46	ug/L	22.5	90	74-123			
Trichlorofluoromethane			1.0	0.88	ug/L	ND		62-152			
Vinyl chloride			1.0	0.90	ug/L	ND		65-133			
Xylenes, total		75.0	2.0	0.66	ug/L	69.5	93	76-122			
<i>Surrogate:</i>					ug/L		97	66-137			
<i>1,2-Dichloroethane-d4</i>											
<i>Surrogate:</i>					ug/L		106	73-120			
<i>4-Bromofluorobenzene</i>											
<i>Surrogate: Toluene-d8</i>					ug/L		106	71-126			

Benchmark Environmental & Engineering Science
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Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
Blank Analyzed: 10/09/10 (Lab Number:10I1861-BLK1, Batch: 10I1861)											
2,4,5-Trichlorophenol			25	0.48	ug/L	ND					
2,4,6-Trichlorophenol			10	0.61	ug/L	ND					
2,4-Dichlorophenol			10	0.51	ug/L	ND					
2,4-Dimethylphenol			10	0.50	ug/L	ND					
2,4-Dinitrophenol			50	2.2	ug/L	ND					
2,4-Dinitrotoluene			10	0.45	ug/L	ND					
2,6-Dinitrotoluene			10	0.40	ug/L	ND					
2-Chloronaphthalene			10	0.46	ug/L	ND					
2-Chlorophenol			10	0.53	ug/L	ND					
2-Methylnaphthalene			10	0.60	ug/L	ND					
2-Methylphenol			10	0.40	ug/L	ND					
2-Nitroaniline			50	0.42	ug/L	ND					
2-Nitrophenol			10	0.48	ug/L	ND					
3,3'-Dichlorobenzidine			20	0.40	ug/L	ND					
3-Nitroaniline			50	0.48	ug/L	ND					
4,6-Dinitro-2-methylphenol			50	2.2	ug/L	ND					
4-Bromophenyl phenyl ether			10	0.45	ug/L	ND					
4-Chloro-3-methylphenol			10	0.45	ug/L	ND					
4-Chloroaniline			10	0.59	ug/L	ND					
4-Chlorophenyl phenyl ether			10	0.35	ug/L	ND					
4-Methylphenol			5.0	0.36	ug/L	ND					
4-Nitroaniline			50	0.25	ug/L	ND					
4-Nitrophenol			50	1.5	ug/L	ND					
Acenaphthene			10	0.41	ug/L	ND					
Acenaphthylene			10	0.38	ug/L	ND					
Acetophenone			10	0.54	ug/L	ND					
Anthracene			10	0.28	ug/L	ND					
Atrazine			10	0.46	ug/L	ND					
Benzaldehyde			50	0.27	ug/L	ND					
Benzo(a)anthracene			10	0.36	ug/L	ND					
Benzo(a)pyrene			10	0.47	ug/L	ND					
Benzo(b)fluoranthene			10	0.34	ug/L	ND					
Benzo(ghi)perylene			10	0.35	ug/L	ND					
Benzo(k)fluoranthene			10	0.73	ug/L	ND					
Biphenyl			10	0.65	ug/L	ND					

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatile Organics by GC/MS</u>											
Blank Analyzed: 10/09/10 (Lab Number:10I1861-BLK1, Batch: 10I1861)											
Bis(2-chloroethoxy)methane			10	0.35	ug/L	ND					
Bis(2-chloroethyl)ether			10	0.40	ug/L	ND					
2,2'-Oxybis(1-Chloropropane)			10	0.52	ug/L	ND					
Bis(2-ethylhexyl)phthalate			10	1.8	ug/L	ND					
Butyl benzyl phthalate			10	0.42	ug/L	ND					
Caprolactam			10	2.2	ug/L	ND					
Carbazole			5.0	0.30	ug/L	ND					
Chrysene			10	0.33	ug/L	ND					
Dibenzo(a,h)anthracene			10	0.42	ug/L	ND					
Dibenzofuran			10	0.51	ug/L	ND					
Diethyl phthalate			10	0.22	ug/L	ND					
Dimethyl phthalate			10	0.36	ug/L	ND					
Di-n-butyl phthalate			10	0.31	ug/L	ND					
Di-n-octyl phthalate			10	0.47	ug/L	ND					
Fluoranthene			10	0.40	ug/L	ND					
Fluorene			10	0.36	ug/L	ND					
Hexachlorobenzene			10	0.51	ug/L	ND					
Hexachlorobutadiene			10	0.68	ug/L	ND					
Hexachlorocyclopentadiene			10	0.59	ug/L	ND					
Hexachloroethane			10	0.59	ug/L	ND					
Indeno(1,2,3-cd)pyrene			10	0.47	ug/L	ND					
Isophorone			10	0.43	ug/L	ND					
Naphthalene			10	0.76	ug/L	ND					
Nitrobenzene			10	0.29	ug/L	ND					
N-Nitrosodi-n-propylamine			10	0.54	ug/L	ND					
N-Nitrosodiphenylamine			10	0.51	ug/L	ND					
Pentachlorophenol			50	2.2	ug/L	ND					
Phenanthrene			10	0.44	ug/L	ND					
Phenol			10	0.39	ug/L	ND					
Pyrene			10	0.34	ug/L	ND					
Surrogate: 2,4,6-Tribromophenol					ug/L		94	52-132			
Surrogate: 2-Fluorobiphenyl					ug/L		69	48-120			
Surrogate: 2-Fluorophenol					ug/L		37	20-120			

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
Blank Analyzed: 10/09/10 (Lab Number:10I1861-BLK1, Batch: 10I1861)											
Surrogate:					ug/L		67	46-120			
Nitrobenzene-d5											
Surrogate: Phenol-d5					ug/L		28	16-120			
Surrogate:					ug/L		77	24-136			
p-Terphenyl-d14											
LCS Analyzed: 10/09/10 (Lab Number:10I1861-BS1, Batch: 10I1861)											
1,2,4-Trichlorobenzene		100	10	0.44	ug/L	65.6	66	40-120			
1,2-Dichlorobenzene			10	0.40	ug/L	ND		33-120			
1,3-Dichlorobenzene			10	0.48	ug/L	ND		28-120			
2,4,5-Trichlorophenol			50	0.48	ug/L	ND		65-126			
2,4,6-Trichlorophenol			10	0.61	ug/L	ND		64-120			
2,4-Dichlorophenol			10	0.51	ug/L	ND		64-120			
2,4-Dimethylphenol			10	0.50	ug/L	ND		57-120			
2,4-Dinitrophenol			50	2.2	ug/L	ND		42-153			
2,4-Dinitrotoluene		100	10	0.45	ug/L	93.7	94	59-125			
2,6-Dinitrotoluene			10	0.40	ug/L	ND		74-134			
2-Chloronaphthalene			10	0.46	ug/L	ND		52-120			
2-Chlorophenol		100	10	0.53	ug/L	62.9	63	48-120			
2-Methylnaphthalene			10	0.60	ug/L	ND		48-120			
2-Methylphenol			10	0.40	ug/L	ND		39-120			
2-Nitroaniline			50	0.42	ug/L	ND		67-136			
2-Nitrophenol			10	0.48	ug/L	ND		59-120			
3,3'-Dichlorobenzidine			20	0.40	ug/L	ND		33-140			
3-Nitroaniline			50	0.48	ug/L	ND		69-129			
4,6-Dinitro-2-methylphenol			50	2.2	ug/L	ND		64-159			
4-Bromophenyl phenyl ether			10	0.45	ug/L	ND		71-126			
4-Chloro-3-methylphenol		100	10	0.45	ug/L	85.5	86	64-120			
4-Chloroaniline			10	0.59	ug/L	ND		60-124			
4-Chlorophenyl phenyl ether			10	0.35	ug/L	ND		71-122			
4-Methylphenol			5.0	0.36	ug/L	ND		36-120			
4-Nitroaniline			50	0.25	ug/L	ND		64-135			
4-Nitrophenol		100	50	1.5	ug/L	29.4	29	16-120			J
Acenaphthene		100	10	0.41	ug/L	81.4	81	60-120			
Acenaphthylene			10	0.38	ug/L	ND		63-120			
Acetophenone			10	0.54	ug/L	ND		45-120			
Anthracene			10	0.28	ug/L	ND		69-131			
Atrazine			10	0.46	ug/L	ND		70-129			

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

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Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
LCS Analyzed: 10/09/10 (Lab Number:1011861-BS1, Batch: 1011861)											
Benzaldehyde			50	0.27	ug/L	ND		30-140			
Benzo(a)anthracene			10	0.36	ug/L	ND		73-138			
Benzo(a)pyrene			10	0.47	ug/L	ND		74-126			
Benzo(b)fluoranthene			10	0.34	ug/L	ND		75-133			
Benzo(ghi)perylene			10	0.35	ug/L	ND		66-152			
Benzo(k)fluoranthene			10	0.73	ug/L	ND		75-133			
Biphenyl			10	0.65	ug/L	ND		30-140			
Bis(2-chloroethoxy)methane			10	0.35	ug/L	ND		62-120			
Bis(2-chloroethyl)ether			10	0.40	ug/L	ND		51-120			
2,2'-Oxybis(1-Chloropropane)			10	0.52	ug/L	ND		47-120			
Bis(2-ethylhexyl)phthalate		100	10	1.8	ug/L	88.3	88	69-136			
Butyl benzyl phthalate			10	0.42	ug/L	0.690		62-149			J
Caprolactam			10	2.2	ug/L	ND		30-140			
Carbazole			5.0	0.30	ug/L	ND		68-133			
Chrysene			10	0.33	ug/L	ND		69-140			
Dibenzo(a,h)anthracene			10	0.42	ug/L	ND		67-144			
Dibenzofuran			10	0.51	ug/L	ND		66-120			
Diethyl phthalate			10	0.22	ug/L	ND		78-128			
Dimethyl phthalate			10	0.36	ug/L	ND		73-127			
Di-n-butyl phthalate			10	0.31	ug/L	0.360		67-132			J
Di-n-octyl phthalate			10	0.47	ug/L	ND		72-145			
Fluoranthene			10	0.40	ug/L	1.13		67-133			J
Fluorene		100	10	0.36	ug/L	89.4	89	66-129			
Hexachlorobenzene			10	0.51	ug/L	ND		38-131			
Hexachlorobutadiene			10	0.68	ug/L	ND		30-120			
Hexachlorocyclopentadiene			10	0.59	ug/L	ND		23-120			
Hexachloroethane		100	10	0.59	ug/L	56.4	56	25-120			
Indeno(1,2,3-cd)pyrene			10	0.47	ug/L	ND		69-146			
Isophorone			10	0.43	ug/L	ND		64-120			
Naphthalene			10	0.76	ug/L	ND		48-120			
Nitrobenzene			10	0.29	ug/L	ND		52-120			
N-Nitrosodi-n-propylamine		100	10	0.54	ug/L	73.3	73	56-120			
N-Nitrosodiphenylamine			10	0.51	ug/L	ND		25-125			
Pentachlorophenol		100	50	2.2	ug/L	92.7	93	39-136			
Phenanthrene			10	0.44	ug/L	ND		67-130			

Benchmark Environmental & Engineering Science
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Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

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Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatile Organics by GC/MS</u>											
LCS Analyzed: 10/09/10 (Lab Number:10I1861-BS1, Batch: 10I1861)											
Phenol		100	10	0.39	ug/L	29.9	30	17-120			
Pyrene		100	10	0.34	ug/L	91.2	91	58-136			
Surrogate:					ug/L		109	52-132			
2,4,6-Tribromophenol											
Surrogate:					ug/L		82	48-120			
2-Fluorobiphenyl											
Surrogate:					ug/L		40	20-120			
2-Fluorophenol											
Surrogate:					ug/L		76	46-120			
Nitrobenzene-d5											
Surrogate: Phenol-d5					ug/L		30	16-120			
Surrogate:					ug/L		86	24-136			
p-Terphenyl-d14											
LCS Dup Analyzed: 10/09/10 (Lab Number:10I1861-BS1, Batch: 10I1861)											
1,2,4-Trichlorobenzene		100	10	0.44	ug/L	68.3	68	40-120	4	30	
1,2-Dichlorobenzene			10	0.40	ug/L	ND		33-120		29	
1,3-Dichlorobenzene			10	0.48	ug/L	ND		28-120		37	
2,4,5-Trichlorophenol			50	0.48	ug/L	ND		65-126		18	
2,4,6-Trichlorophenol			10	0.61	ug/L	ND		64-120		19	
2,4-Dichlorophenol			10	0.51	ug/L	ND		64-120		19	
2,4-Dimethylphenol			10	0.50	ug/L	ND		57-120		42	
2,4-Dinitrophenol			50	2.2	ug/L	ND		42-153		22	
2,4-Dinitrotoluene		100	10	0.45	ug/L	97.8	98	59-125	4	20	
2,6-Dinitrotoluene			10	0.40	ug/L	ND		74-134		15	
2-Chloronaphthalene			10	0.46	ug/L	ND		52-120		21	
2-Chlorophenol		100	10	0.53	ug/L	65.1	65	48-120	3	25	
2-Methylnaphthalene			10	0.60	ug/L	ND		48-120		21	
2-Methylphenol			10	0.40	ug/L	ND		39-120		27	
2-Nitroaniline			50	0.42	ug/L	ND		67-136		15	
2-Nitrophenol			10	0.48	ug/L	ND		59-120		18	
3,3'-Dichlorobenzidine			20	0.40	ug/L	ND		33-140		25	
3-Nitroaniline			50	0.48	ug/L	ND		69-129		19	
4,6-Dinitro-2-methylphenol			50	2.2	ug/L	ND		64-159		15	
4-Bromophenyl phenyl ether			10	0.45	ug/L	ND		71-126		15	
4-Chloro-3-methylphenol		100	10	0.45	ug/L	86.8	87	64-120	2	27	
4-Chloroaniline			10	0.59	ug/L	ND		60-124		22	
4-Chlorophenyl phenyl ether			10	0.35	ug/L	ND		71-122		16	
4-Methylphenol			5.0	0.36	ug/L	ND		36-120		24	

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Project: Benchmark - 295 Maryland St. site
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Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
LCS Dup Analyzed: 10/09/10 (Lab Number:101861-BSD1, Batch: 101861)											
4-Nitroaniline			50	0.25	ug/L	ND		64-135		24	
4-Nitrophenol		100	50	1.5	ug/L	32.4	32	16-120	9	48	J
Acenaphthene		100	10	0.41	ug/L	81.7	82	60-120	0.4	24	
Acenaphthylene			10	0.38	ug/L	ND		63-120		18	
Acetophenone			10	0.54	ug/L	ND		45-120		20	
Anthracene			10	0.28	ug/L	ND		69-131		15	
Atrazine			10	0.46	ug/L	ND		70-129		20	
Benzaldehyde			50	0.27	ug/L	ND		30-140		20	
Benzo(a)anthracene			10	0.36	ug/L	ND		73-138		15	
Benzo(a)pyrene			10	0.47	ug/L	ND		74-126		15	
Benzo(b)fluoranthene			10	0.34	ug/L	ND		75-133		15	
Benzo(ghi)perylene			10	0.35	ug/L	ND		66-152		15	
Benzo(k)fluoranthene			10	0.73	ug/L	ND		75-133		22	
Biphenyl			10	0.65	ug/L	ND		30-140		20	
Bis(2-chloroethoxy)methane			10	0.35	ug/L	ND		62-120		17	
Bis(2-chloroethyl)ether			10	0.40	ug/L	ND		51-120		21	
2,2'-Oxybis(1-Chloropropane)			10	0.52	ug/L	ND		47-120		24	
Bis(2-ethylhexyl)phthalate		100	10	1.8	ug/L	94.2	94	69-136	6	15	
Butyl benzyl phthalate			10	0.42	ug/L	0.730		62-149	6	16	J
Caprolactam			10	2.2	ug/L	ND		30-140		20	
Carbazole			5.0	0.30	ug/L	ND		68-133		20	
Chrysene			10	0.33	ug/L	ND		69-140		15	
Dibenzo(a,h)anthracene			10	0.42	ug/L	ND		67-144		15	
Dibenzofuran			10	0.51	ug/L	ND		66-120		15	
Diethyl phthalate			10	0.22	ug/L	ND		78-128		15	
Dimethyl phthalate			10	0.36	ug/L	ND		73-127		15	
Di-n-butyl phthalate			10	0.31	ug/L	0.540		67-132	40	15	J
Di-n-octyl phthalate			10	0.47	ug/L	ND		72-145		16	
Fluoranthene			10	0.40	ug/L	1.18		67-133	4	15	J
Fluorene		100	10	0.36	ug/L	90.9	91	66-129	2	15	
Hexachlorobenzene			10	0.51	ug/L	ND		38-131		15	
Hexachlorobutadiene			10	0.68	ug/L	ND		30-120		44	
Hexachlorocyclopentadiene			10	0.59	ug/L	ND		23-120		49	
Hexachloroethane		100	10	0.59	ug/L	61.4	61	25-120	8	46	
Indeno(1,2,3-cd)pyrene			10	0.47	ug/L	ND		69-146		15	

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Semivolatiles Organics by GC/MS</u>											
LCS Dup Analyzed: 10/09/10 (Lab Number:10I1861-BSD1, Batch: 10I1861)											
Isophorone			10	0.43	ug/L	ND		64-120		17	
Naphthalene			10	0.76	ug/L	ND		48-120		29	
Nitrobenzene			10	0.29	ug/L	ND		52-120		24	
N-Nitrosodi-n-propylamine		100	10	0.54	ug/L	74.8	75	56-120	2	31	
N-Nitrosodiphenylamine			10	0.51	ug/L	ND		25-125		15	
Pentachlorophenol		100	50	2.2	ug/L	98.7	99	39-136	6	37	
Phenanthrene			10	0.44	ug/L	ND		67-130		15	
Phenol		100	10	0.39	ug/L	30.0	30	17-120	0.3	34	
Pyrene		100	10	0.34	ug/L	94.5	95	58-136	4	19	
<i>Surrogate:</i>					ug/L		115	52-132			
<i>2,4,6-Tribromophenol</i>					ug/L		82	48-120			
<i>Surrogate:</i>					ug/L		42	20-120			
<i>2-Fluorobiphenyl</i>					ug/L		79	46-120			
<i>Surrogate:</i>					ug/L		30	16-120			
<i>Nitrobenzene-d5</i>					ug/L		92	24-136			
<i>Surrogate: Phenol-d5</i>					ug/L						
<i>Surrogate:</i>					ug/L						
<i>p-Terphenyl-d14</i>					ug/L						

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Organochlorine Pesticides by EPA Method 8081A</u>											
Blank Analyzed: 09/28/10 (Lab Number:10I1862-BLK1, Batch: 10I1862)											
4,4'-DDD			0.050	0.0092	ug/L	ND					
4,4'-DDD [2C]			0.050	0.0092	ug/L	ND					
4,4'-DDE			0.050	0.012	ug/L	ND					
4,4'-DDE [2C]			0.050	0.012	ug/L	ND					
4,4'-DDT			0.050	0.011	ug/L	ND					
4,4'-DDT [2C]			0.050	0.011	ug/L	ND					
Aldrin			0.050	0.0066	ug/L	ND					
Aldrin [2C]			0.050	0.0066	ug/L	ND					
alpha-BHC			0.050	0.0066	ug/L	ND					
alpha-BHC [2C]			0.050	0.0066	ug/L	ND					
alpha-Chlordane			0.050	0.015	ug/L	ND					
alpha-Chlordane [2C]			0.050	0.015	ug/L	ND					
beta-BHC			0.050	0.025	ug/L	ND					
beta-BHC [2C]			0.050	0.025	ug/L	ND					
Chlordane			0.50	0.029	ug/L	ND					
Chlordane [2C]			0.50	0.029	ug/L	ND					
delta-BHC			0.050	0.010	ug/L	ND					
delta-BHC [2C]			0.050	0.010	ug/L	ND					
Dieldrin			0.050	0.0098	ug/L	ND					
Dieldrin [2C]			0.050	0.0098	ug/L	ND					
Endosulfan I			0.050	0.011	ug/L	ND					
Endosulfan I [2C]			0.050	0.011	ug/L	ND					
Endosulfan II			0.050	0.012	ug/L	ND					
Endosulfan II [2C]			0.050	0.012	ug/L	ND					
Endosulfan sulfate			0.050	0.016	ug/L	ND					
Endosulfan sulfate [2C]			0.050	0.016	ug/L	ND					
Endrin			0.050	0.014	ug/L	ND					
Endrin [2C]			0.050	0.014	ug/L	ND					
Endrin aldehyde			0.050	0.016	ug/L	ND					
Endrin aldehyde [2C]			0.050	0.016	ug/L	ND					
Endrin ketone			0.050	0.012	ug/L	ND					
Endrin ketone [2C]			0.050	0.012	ug/L	ND					
gamma-BHC (Lindane)			0.050	0.0060	ug/L	ND					
gamma-BHC (Lindane) [2C]			0.050	0.0060	ug/L	ND					
gamma-Chlordane			0.050	0.011	ug/L	ND					
gamma-Chlordane [2C]			0.050	0.011	ug/L	ND					
Heptachlor			0.050	0.0085	ug/L	ND					

Benchmark Environmental & Engineering Science
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Work Order: RT11555

Project: Benchmark - 295 Maryland St. site

Project Number: TURN-0066

Received: 09/24/10

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LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Organochlorine Pesticides by EPA Method 8081A

Blank Analyzed: 09/28/10 (Lab Number:10I1862-BLK1, Batch: 10I1862)

Heptachlor [2C]			0.050	0.0085	ug/L	ND					
Heptachlor epoxide			0.050	0.0053	ug/L	ND					
Heptachlor epoxide [2C]			0.050	0.0053	ug/L	ND					
Methoxychlor			0.050	0.014	ug/L	ND					
Methoxychlor [2C]			0.050	0.014	ug/L	ND					
Toxaphene			0.50	0.12	ug/L	ND					
Toxaphene [2C]			0.50	0.12	ug/L	ND					

Surrogate:					ug/L		72	15-139			
Decachlorobiphenyl											
Surrogate:					ug/L		70	15-139			
Decachlorobiphenyl [2C]											
Surrogate:					ug/L		75	30-139			
Tetrachloro-m-xylene											
Surrogate:					ug/L		82	30-139			
Tetrachloro-m-xylene											

LCS Analyzed: 09/28/10 (Lab Number:10I1862-BS1, Batch: 10I1862)

4,4'-DDD	0.500	0.050	0.0092	ug/L	0.488	98	25-139				
4,4'-DDD [2C]	0.500	0.050	0.0092	ug/L	0.605	121	25-139				
4,4'-DDE	0.500	0.050	0.012	ug/L	0.439	88	49-127				
4,4'-DDE [2C]	0.500	0.050	0.012	ug/L	0.524	105	49-127				
4,4'-DDT	0.500	0.050	0.011	ug/L	0.501	100	47-130				
4,4'-DDT [2C]	0.500	0.050	0.011	ug/L	0.559	112	47-130				
Aldrin	0.500	0.050	0.0066	ug/L	0.366	73	35-120				
Aldrin [2C]	0.500	0.050	0.0066	ug/L	0.438	88	35-120				
alpha-BHC	0.500	0.050	0.0066	ug/L	0.514	103	39-121				
alpha-BHC [2C]	0.500	0.050	0.0066	ug/L	0.540	108	39-121				
alpha-Chlordane	0.500	0.050	0.015	ug/L	0.434	87	40-160				
alpha-Chlordane [2C]	0.500	0.050	0.015	ug/L	0.528	106	40-160				
beta-BHC	0.500	0.050	0.025	ug/L	0.527	105	39-138				
beta-BHC [2C]	0.500	0.050	0.025	ug/L	0.591	118	39-138				
delta-BHC	0.500	0.050	0.010	ug/L	0.518	104	40-121				
delta-BHC [2C]	0.500	0.050	0.010	ug/L	0.588	118	40-121				
Dieldrin	0.500	0.050	0.0098	ug/L	0.486	97	41-131				
Dieldrin [2C]	0.500	0.050	0.0098	ug/L	0.565	113	41-131				
Endosulfan I	0.500	0.050	0.011	ug/L	0.391	78	41-126				
Endosulfan I [2C]	0.500	0.050	0.011	ug/L	0.462	92	41-126				
Endosulfan II	0.500	0.050	0.012	ug/L	0.432	86	32-134				
Endosulfan II [2C]	0.500	0.050	0.012	ug/L	0.513	103	32-134				
Endosulfan sulfate	0.500	0.050	0.016	ug/L	0.623	125	46-131				

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Organochlorine Pesticides by EPA Method 8081A											
LCS Analyzed: 09/28/10 (Lab Number:10I1862-BS1, Batch: 10I1862)											
Endosulfan sulfate [2C]		0.500	0.050	0.016	ug/L	0.588	118	46-131			
Endrin		0.500	0.050	0.014	ug/L	0.498	100	43-134			
Endrin [2C]		0.500	0.050	0.014	ug/L	0.565	113	43-134			
Endrin aldehyde		0.500	0.050	0.016	ug/L	0.527	105	39-128			
Endrin aldehyde [2C]		0.500	0.050	0.016	ug/L	0.625	125	39-128			
Endrin ketone		0.500	0.050	0.012	ug/L	0.538	108	50-150			
Endrin ketone [2C]		0.500	0.050	0.012	ug/L	0.601	120	50-150			
gamma-BHC (Lindane)		0.500	0.050	0.0060	ug/L	0.521	104	68-120			
gamma-BHC (Lindane) [2C]		0.500	0.050	0.0060	ug/L	0.588	118	68-120			
gamma-Chlordane		0.500	0.050	0.011	ug/L	0.437	87	40-160			
gamma-Chlordane [2C]		0.500	0.050	0.011	ug/L	0.509	102	40-160			
Heptachlor		0.500	0.050	0.0085	ug/L	0.423	85	52-120			
Heptachlor [2C]		0.500	0.050	0.0085	ug/L	0.496	99	52-120			
Heptachlor epoxide		0.500	0.050	0.0053	ug/L	0.479	96	65-120			
Heptachlor epoxide [2C]		0.500	0.050	0.0053	ug/L	0.577	115	65-120			
Methoxychlor		0.500	0.050	0.014	ug/L	0.525	105	52-142			
Methoxychlor [2C]		0.500	0.050	0.014	ug/L	0.836	167	52-142			L1
Surrogate:					ug/L		47	15-139			
Decachlorobiphenyl					ug/L		56	15-139			
Surrogate:					ug/L		73	30-139			
Decachlorobiphenyl [2C]					ug/L		76	30-139			
Surrogate:					ug/L						
Tetrachloro-m-xylene					ug/L						
Surrogate:					ug/L						
Tetrachloro-m-xylene					ug/L						

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Polychlorinated Biphenyls by EPA Method 8082</u>											
Blank Analyzed: 09/28/10 (Lab Number:10I1863-BLK1, Batch: 10I1863)											
Aroclor 1016			0.50	0.18	ug/L	ND					QSU
Aroclor 1016 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1221			0.50	0.18	ug/L	ND					QSU
Aroclor 1221 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1232			0.50	0.18	ug/L	ND					QSU
Aroclor 1232 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1242			0.50	0.18	ug/L	ND					QSU
Aroclor 1242 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1248			0.50	0.18	ug/L	ND					QSU
Aroclor 1248 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1254			0.50	0.25	ug/L	ND					QSU
Aroclor 1254 [2C]			0.50	0.25	ug/L	ND					QSU
Aroclor 1260			0.50	0.25	ug/L	ND					QSU
Aroclor 1260 [2C]			0.50	0.25	ug/L	ND					QSU
Surrogate:					ug/L		60	12-137			QSU
Decachlorobiphenyl											
Surrogate:					ug/L		54	12-137			QSU
Decachlorobiphenyl [2C]											
Surrogate:					ug/L		62	35-121			QSU
Tetrachloro-m-xylene											
Surrogate:					ug/L		62	35-121			QSU
Tetrachloro-m-xylene											
LCS Analyzed: 09/28/10 (Lab Number:10I1863-BS1, Batch: 10I1863)											
Aroclor 1016		5.00	0.50	0.18	ug/L	3.26	65	61-123			QSU
Aroclor 1016 [2C]		5.00	0.50	0.18	ug/L	3.00	60	61-123			QSU
Aroclor 1221			0.50	0.18	ug/L	ND					QSU
Aroclor 1221 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1232			0.50	0.18	ug/L	ND					QSU
Aroclor 1232 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1242			0.50	0.18	ug/L	ND					QSU
Aroclor 1242 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1248			0.50	0.18	ug/L	ND					QSU
Aroclor 1248 [2C]			0.50	0.18	ug/L	ND					QSU
Aroclor 1254			0.50	0.25	ug/L	ND					QSU
Aroclor 1254 [2C]			0.50	0.25	ug/L	ND					QSU
Aroclor 1260		5.00	0.50	0.25	ug/L	4.31	86	52-128			QSU
Aroclor 1260 [2C]		5.00	0.50	0.25	ug/L	4.03	81	52-128			QSU
Surrogate:					ug/L		64	12-137			QSU
Decachlorobiphenyl											

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>Polychlorinated Biphenyls by EPA Method 8082</u>											
LCS Analyzed: 09/28/10 (Lab Number:10I1863-BS1, Batch: 10I1863)											
Surrogate:					ug/L		58	12-137			QSU
Decachlorobiphenyl [2C]											
Surrogate:					ug/L		53	35-121			QSU
Tetrachloro-m-xylene											
Surrogate:					ug/L		51	35-121			QSU
Tetrachloro-m-xylene											

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RT11555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Total Metals by SW 846 Series Methods

Blank Analyzed: 09/28/10 (Lab Number:10I1960-BLK1, Batch: 10I1960)

Aluminum			0.200	NR	mg/L	ND					
Antimony			0.0200	NR	mg/L	ND					
Arsenic			0.0100	NR	mg/L	ND					
Barium			0.0020	NR	mg/L	ND					
Beryllium			0.0020	NR	mg/L	ND					
Cadmium			0.0010	NR	mg/L	ND					
Calcium			0.5	NR	mg/L	ND					
Chromium			0.0040	NR	mg/L	ND					
Cobalt			0.0040	NR	mg/L	ND					
Copper			0.0100	NR	mg/L	ND					
Lead			0.0050	NR	mg/L	ND					
Magnesium			0.200	NR	mg/L	ND					
Manganese			0.0030	NR	mg/L	ND					
Nickel			0.0100	NR	mg/L	ND					
Selenium			0.0150	NR	mg/L	ND					
Silver			0.0030	NR	mg/L	ND					
Thallium			0.0200	NR	mg/L	ND					
Vanadium			0.0050	NR	mg/L	ND					
Zinc			0.0100	NR	mg/L	ND					

Blank Analyzed: 09/29/10 (Lab Number:10I1960-BLK2, Batch: 10I1960)

Iron			0.050	NR	mg/L	ND					
Potassium			0.500	NR	mg/L	ND					
Sodium			1.0	NR	mg/L	ND					

LCS Analyzed: 09/28/10 (Lab Number:10I1960-BS1, Batch: 10I1960)

Aluminum	10.0	0.200	NR	mg/L	8.81	88	80-120
Antimony	0.200	0.0200	NR	mg/L	0.210	105	80-120
Arsenic	0.200	0.0100	NR	mg/L	0.204	102	80-120
Barium	0.200	0.0020	NR	mg/L	0.198	99	80-120
Beryllium	0.200	0.0020	NR	mg/L	0.185	93	80-120
Cadmium	0.200	0.0010	NR	mg/L	0.199	99	80-120
Calcium	10.0	0.5	NR	mg/L	9.48	95	80-120
Chromium	0.200	0.0040	NR	mg/L	0.206	103	80-120
Cobalt	0.200	0.0040	NR	mg/L	0.202	101	80-120
Copper	0.200	0.0100	NR	mg/L	0.200	100	80-120
Lead	0.200	0.0050	NR	mg/L	0.202	101	80-120
Magnesium	10.0	0.200	NR	mg/L	10.4	104	80-120
Manganese	0.200	0.0030	NR	mg/L	0.197	99	80-120

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
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Total Metals by SW 846 Series Methods

LCS Analyzed: 09/28/10 (Lab Number:10I1960-BS1, Batch: 10I1960)

Nickel		0.200	0.0100	NR	mg/L	0.197	99	80-120			
Selenium		0.200	0.0150	NR	mg/L	0.205	103	80-120			
Silver		0.0500	0.0030	NR	mg/L	0.0515	103	80-120			
Thallium		0.200	0.0200	NR	mg/L	0.207	104	80-120			
Vanadium		0.200	0.0050	NR	mg/L	0.200	100	80-120			
Zinc		0.200	0.0100	NR	mg/L	0.200	100	80-120			

LCS Analyzed: 09/29/10 (Lab Number:10I1960-BS2, Batch: 10I1960)

Iron		10.0	0.050	NR	mg/L	9.97	100	80-120			
Potassium		10.0	0.500	NR	mg/L	10.1	101	80-120			
Sodium		10.0	1.0	NR	mg/L	10.1	101	80-120			

Total Metals by SW 846 Series Methods

Blank Analyzed: 09/30/10 (Lab Number:10I2202-BLK1, Batch: 10I2202)

Mercury			0.0002	NR	mg/L	ND					
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LCS Analyzed: 09/30/10 (Lab Number:10I2202-BS1, Batch: 10I2202)

Mercury		0.00667	0.0004	NR	mg/L	0.00673	101	80-120			
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Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTI1555

Project: Benchmark - 295 Maryland St. site
Project Number: TURN-0066

Received: 09/24/10
Reported: 10/15/10 09:06

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
<u>General Chemistry Parameters</u>											
Blank Analyzed: 10/01/10 (Lab Number:10I2226-BLK1, Batch: 10I2226)											
Total Cyanide			0.0100	NR	mg/L	ND					
LCS Analyzed: 10/01/10 (Lab Number:10I2226-BS1, Batch: 10I2226)											
Total Cyanide		0.250	0.0100	NR	mg/L	0.279	112	90-110			L

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client <u>Benchmark</u>		Project Manager <u>Tom Forbes</u>		Date <u>9-23-10</u>	Chain of Custody Number <u>125599</u>
Address <u>2558 Hamburg Turnpike Suite 300</u>		Telephone Number (Area Code) / Fax Number <u>(716) 856-0599 / (716) 856-0583</u>		Lab Number	Page <u>1</u> of <u>1</u>

City <u>Buffalo</u>	State <u>NY</u>	Zip Code <u>14218</u>	Site Contact <u>Paul W. Werthman</u>	Lab Contact <u>B. Fischer</u>	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
Project Name and Location (State) <u>295 Maryland St Site</u>			Carrier/Waybill Number			

Contract/Purchase Order/Quote No. 0222-001-100			Matrix				Containers & Preservatives							Analysis					Conditions of Receipt
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Acid	Soil	Sed	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2	NH4OH	TU Vol. E	TU Succ. E	PL Post + F	Cyanide	TU Metals	
MW-1	9-23-10	10:20		X				6	1	3	1			X	X	X	X	X	
MW-2	↓	13:35		X				6	1	3	1			X	X	X	X	X	
MW-3	↓	12:25		X				6	1	3	1			X	X	X	X	X	
MW-4	↓	11:20		X				6	1	3	1			X	X	X	X	X	

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	

Turn Around Time Required	QC Requirements (Specify)
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> Days <input checked="" type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____	<u>Level 4 deliverables</u>

1. Relinquished By <u>Paul W. Werthman</u>	Date <u>9-23-10</u>	Time <u>15:00</u>	1. Received By <u>[Signature]</u>	Date <u>09-24-10</u>	Time <u>11:30</u>
2. Relinquished By <u>[Signature]</u>	Date <u>09-24-10</u>	Time <u>15:10</u>	2. Received By <u>[Signature]</u>	Date <u>9-24-10</u>	Time <u>15:10</u>
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments _____

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

(4.300)



ANALYTICAL REPORT

Lab Number:	L1318716
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Ray Laport
Phone:	(716) 856-0599
Project Name:	295 MARYLAND ST
Project Number:	0222-001-101
Report Date:	10/03/13

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1318716-01	TP-4-13 (0-3')	295 MARYLAND ST	09/18/13 16:30
L1318716-02	TP-5-13 (0-3')	295 MARYLAND ST	09/18/13 11:50
L1318716-03	TP-6-13 (7-9')	295 MARYLAND ST	09/18/13 15:30
L1318716-04	TP-7-13 (0-3')	295 MARYLAND ST	09/19/13 08:40
L1318716-05	TP-9-13 (9-12')	295 MARYLAND ST	09/19/13 09:30
L1318716-06	TP-13-13 (8-9')	295 MARYLAND ST	09/19/13 16:00
L1318716-07	TP-22-13 (6-8')	295 MARYLAND ST	09/19/13 14:15
L1318716-08	TP-23-13 (0.5-3')	295 MARYLAND ST	09/19/13 15:30
L1318716-09	TP-24-13 (0.5-4')	295 MARYLAND ST	09/19/13 17:00
L1318716-10	TP-25-13 (0.5-4')	295 MARYLAND ST	09/20/13 11:30

Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L1318716-05 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Semivolatile Organics

L1318716-10 has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the sample matrix.

Chlorinated Herbicides

The WG638423-2 LCS recovery, associated with L1318716-02, is above the acceptance criteria for mcpa (178%); however, the associated sample is non-detect for this target compound. The results of the original analysis are reported.

The WG638423-2/-3 LCS/LCSD RPDs, associated with L1318716-02, are above the acceptance criteria for mcpa (66%) and dalapon (37%).

The WG639096-2/-3 LCS/LCSD recoveries, associated with L1318716-01 and -07, are above the acceptance criteria for mcpa (208%/250%); however, the associated samples are non-detect for this target compound. The results of the original analysis are reported.

Metals

L1318716-01, -02, and -07 have elevated detection limits for all elements, with the exception of mercury, due to the analytical dilutions required by matrix interferences encountered during analysis.

The WG639248-4 MS recoveries for aluminum (221%), calcium (1330%), iron (0%), lead (0%), magnesium

Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

Case Narrative (continued)

(221%), and zinc (0%), performed on L1318716-01, do not apply because the sample concentrations are greater than four times the spike amount added.

The WG639248-4 MS recovery, performed on L1318716-01, is below the acceptance criteria for thallium (63%). A post digestion spike was performed with an unacceptable recovery of 70%. This has been attributed to sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 10/03/13

ORGANICS

VOLATILES

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-01
Client ID: TP-4-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/30/13 15:25
Analyst: BN
Percent Solids: 86%

Date Collected: 09/18/13 16:30
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.21	1
Chloroform	ND		ug/kg	1.7	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.26	1
Dibromochloromethane	ND		ug/kg	1.2	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.35	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.26	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
Bromoform	ND		ug/kg	4.6	0.48	1
1,1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.7	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.8	0.91	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.16	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.28	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.12	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-01
 Client ID: TP-4-13 (0-3')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/18/13 16:30
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
p/m-Xylene	ND		ug/kg	2.3	0.37	1
o-Xylene	ND		ug/kg	2.3	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Styrene	ND		ug/kg	2.3	0.36	1
Dichlorodifluoromethane	ND		ug/kg	12	0.25	1
Acetone	ND		ug/kg	12	3.6	1
Carbon disulfide	ND		ug/kg	12	2.3	1
2-Butanone	ND		ug/kg	12	0.41	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	5.8	0.23	1
1,2-Dibromoethane	ND		ug/kg	4.6	0.21	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.92	1
Isopropylbenzene	ND		ug/kg	1.2	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.92	1
Methyl Acetate	ND		ug/kg	23	0.89	1
Cyclohexane	ND		ug/kg	23	1.2	1
1,4-Dioxane	ND		ug/kg	120	20.	1
Freon-113	ND		ug/kg	23	0.32	1
Methyl cyclohexane	ND		ug/kg	4.6	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	99		70-130

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-02
Client ID: TP-5-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/30/13 15:53
Analyst: BN
Percent Solids: 86%

Date Collected: 09/18/13 11:50
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.21	1
Chloroform	ND		ug/kg	1.7	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.35	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.27	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
Bromoform	ND		ug/kg	4.7	0.48	1
1,1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.7	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.8	0.91	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.16	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.28	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.12	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-02
 Client ID: TP-5-13 (0-3')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/18/13 11:50
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
p/m-Xylene	ND		ug/kg	2.3	0.38	1
o-Xylene	ND		ug/kg	2.3	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Styrene	ND		ug/kg	2.3	0.36	1
Dichlorodifluoromethane	ND		ug/kg	12	0.25	1
Acetone	ND		ug/kg	12	3.6	1
Carbon disulfide	ND		ug/kg	12	2.3	1
2-Butanone	ND		ug/kg	12	0.41	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	5.8	0.23	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.21	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.92	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.92	1
Methyl Acetate	ND		ug/kg	23	0.89	1
Cyclohexane	ND		ug/kg	23	1.2	1
1,4-Dioxane	ND		ug/kg	120	20.	1
Freon-113	ND		ug/kg	23	0.32	1
Methyl cyclohexane	ND		ug/kg	4.7	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-03
 Client ID: TP-6-13 (7-9')
 Sample Location: 295 MARYLAND ST
 Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 10/02/13 10:48
 Analyst: MM
 Percent Solids: 86%
 TCLP/SPLP Ext. Date: 10/01/13 13:55

Date Collected: 09/18/13 15:30
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	1.6	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	1.4	10
1,1-Dichloroethene	ND		ug/l	5.0	1.4	10
Trichloroethene	ND		ug/l	5.0	1.7	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	95		70-130

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-03
Client ID: TP-6-13 (7-9')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/30/13 16:21
Analyst: BN
Percent Solids: 86%

Date Collected: 09/18/13 15:30
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	10	2.1	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.19	1
Chloroform	ND		ug/kg	1.6	0.39	1
Carbon tetrachloride	ND		ug/kg	1.0	0.22	1
1,2-Dichloropropane	ND		ug/kg	3.7	0.24	1
Dibromochloromethane	ND		ug/kg	1.0	0.32	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.32	1
Tetrachloroethene	ND		ug/kg	1.0	0.15	1
Chlorobenzene	ND		ug/kg	1.0	0.37	1
Trichlorofluoromethane	ND		ug/kg	5.3	0.13	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.15	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.12	1
Bromodichloromethane	ND		ug/kg	1.0	0.24	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13	1
Bromoform	ND		ug/kg	4.2	0.44	1
1,1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.18	1
Benzene	ND		ug/kg	1.0	0.12	1
Toluene	ND		ug/kg	1.6	0.12	1
Ethylbenzene	ND		ug/kg	1.0	0.16	1
Chloromethane	ND		ug/kg	5.3	0.82	1
Bromomethane	ND		ug/kg	2.1	0.36	1
Vinyl chloride	ND		ug/kg	2.1	0.15	1
Chloroethane	ND		ug/kg	2.1	0.33	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.22	1
Trichloroethene	ND		ug/kg	1.0	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	5.3	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	5.3	0.26	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.11	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-03
 Client ID: TP-6-13 (7-9')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/18/13 15:30
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
p/m-Xylene	ND		ug/kg	2.1	0.34	1
o-Xylene	ND		ug/kg	2.1	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.16	1
Styrene	ND		ug/kg	2.1	0.33	1
Dichlorodifluoromethane	ND		ug/kg	10	0.23	1
Acetone	ND		ug/kg	10	3.3	1
Carbon disulfide	ND		ug/kg	10	2.1	1
2-Butanone	ND		ug/kg	10	0.37	1
4-Methyl-2-pentanone	ND		ug/kg	10	0.26	1
2-Hexanone	ND		ug/kg	10	0.20	1
Bromochloromethane	ND		ug/kg	5.3	0.21	1
1,2-Dibromoethane	ND		ug/kg	4.2	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	0.83	1
Isopropylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.3	0.18	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.3	0.83	1
Methyl Acetate	ND		ug/kg	21	0.80	1
Cyclohexane	ND		ug/kg	21	1.1	1
1,4-Dioxane	ND		ug/kg	100	18.	1
Freon-113	ND		ug/kg	21	0.29	1
Methyl cyclohexane	ND		ug/kg	4.2	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-05
 Client ID: TP-9-13 (9-12')
 Sample Location: 295 MARYLAND ST
 Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 10/02/13 21:57
 Analyst: MM
 Percent Solids: 86%
 TCLP/SPLP Ext. Date: 10/01/13 13:55

Date Collected: 09/19/13 09:30
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	7.5	1.6	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	5.0	1.8	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
Benzene	ND		ug/l	5.0	1.6	10
Vinyl chloride	ND		ug/l	10	1.4	10
1,1-Dichloroethene	ND		ug/l	5.0	1.4	10
Trichloroethene	ND		ug/l	5.0	1.7	10
1,4-Dichlorobenzene	ND		ug/l	25	1.9	10
2-Butanone	ND		ug/l	50	19.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	113		70-130

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-05 D
Client ID: TP-9-13 (9-12')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/30/13 16:49
Analyst: BN
Percent Solids: 86%

Date Collected: 09/19/13 09:30
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	580	120	50
1,1-Dichloroethane	ND		ug/kg	87	10.	50
Chloroform	ND		ug/kg	87	21.	50
Carbon tetrachloride	ND		ug/kg	58	12.	50
1,2-Dichloropropane	ND		ug/kg	200	13.	50
Dibromochloromethane	ND		ug/kg	58	18.	50
1,1,2-Trichloroethane	ND		ug/kg	87	18.	50
Tetrachloroethene	ND		ug/kg	58	8.1	50
Chlorobenzene	ND		ug/kg	58	20.	50
Trichlorofluoromethane	ND		ug/kg	290	7.0	50
1,2-Dichloroethane	ND		ug/kg	58	8.5	50
1,1,1-Trichloroethane	ND		ug/kg	58	6.4	50
Bromodichloromethane	ND		ug/kg	58	13.	50
trans-1,3-Dichloropropene	ND		ug/kg	58	7.0	50
cis-1,3-Dichloropropene	ND		ug/kg	58	7.4	50
Bromoform	ND		ug/kg	230	24.	50
1,1,2,2-Tetrachloroethane	ND		ug/kg	58	9.9	50
Benzene	ND		ug/kg	58	6.8	50
Toluene	ND		ug/kg	87	6.5	50
Ethylbenzene	62		ug/kg	58	8.5	50
Chloromethane	ND		ug/kg	290	45.	50
Bromomethane	97	J	ug/kg	120	20.	50
Vinyl chloride	ND		ug/kg	120	8.2	50
Chloroethane	ND		ug/kg	120	18.	50
1,1-Dichloroethene	ND		ug/kg	58	12.	50
trans-1,2-Dichloroethene	ND		ug/kg	87	12.	50
Trichloroethene	ND		ug/kg	58	8.8	50
1,2-Dichlorobenzene	ND		ug/kg	290	11.	50
1,3-Dichlorobenzene	ND		ug/kg	290	11.	50
1,4-Dichlorobenzene	ND		ug/kg	290	14.	50
Methyl tert butyl ether	ND		ug/kg	120	6.0	50

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-05 D

Date Collected: 09/19/13 09:30

Client ID: TP-9-13 (9-12')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
p/m-Xylene	92	J	ug/kg	120	19.	50
o-Xylene	ND		ug/kg	120	16.	50
cis-1,2-Dichloroethene	ND		ug/kg	58	8.6	50
Styrene	ND		ug/kg	120	18.	50
Dichlorodifluoromethane	ND		ug/kg	580	13.	50
Acetone	ND		ug/kg	580	180	50
Carbon disulfide	ND		ug/kg	580	120	50
2-Butanone	ND		ug/kg	580	20.	50
4-Methyl-2-pentanone	ND		ug/kg	580	14.	50
2-Hexanone	ND		ug/kg	580	11.	50
Bromochloromethane	ND		ug/kg	290	11.	50
1,2-Dibromoethane	ND		ug/kg	230	10.	50
1,2-Dibromo-3-chloropropane	ND		ug/kg	290	46.	50
Isopropylbenzene	46	J	ug/kg	58	9.7	50
1,2,3-Trichlorobenzene	ND		ug/kg	290	9.7	50
1,2,4-Trichlorobenzene	ND		ug/kg	290	46.	50
Methyl Acetate	ND		ug/kg	1200	44.	50
Cyclohexane	ND		ug/kg	1200	62.	50
1,4-Dioxane	ND		ug/kg	5800	1000	50
Freon-113	ND		ug/kg	1200	16.	50
Methyl cyclohexane	ND		ug/kg	230	73.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	96		70-130

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-06
Client ID: TP-13-13 (8-9')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/01/13 12:51
Analyst: PP
Percent Solids: 86%

Date Collected: 09/19/13 16:00
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.21	1
Chloroform	ND		ug/kg	1.8	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.41	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.27	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
Bromoform	ND		ug/kg	4.7	0.48	1
1,1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.8	0.91	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.16	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.28	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.12	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-06
 Client ID: TP-13-13 (8-9')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/19/13 16:00
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
p/m-Xylene	ND		ug/kg	2.3	0.38	1
o-Xylene	ND		ug/kg	2.3	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Styrene	ND		ug/kg	2.3	0.36	1
Dichlorodifluoromethane	ND		ug/kg	12	0.25	1
Acetone	32		ug/kg	12	3.6	1
Carbon disulfide	ND		ug/kg	12	2.3	1
2-Butanone	3.0	J	ug/kg	12	0.41	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	5.8	0.23	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.21	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.92	1
Isopropylbenzene	1.3		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.92	1
Methyl Acetate	ND		ug/kg	23	0.89	1
Cyclohexane	ND		ug/kg	23	1.2	1
1,4-Dioxane	ND		ug/kg	120	20.	1
Freon-113	ND		ug/kg	23	0.32	1
Methyl cyclohexane	ND		ug/kg	4.7	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	97		70-130

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-07
Client ID: TP-22-13 (6-8')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/01/13 13:19
Analyst: PP
Percent Solids: 86%

Date Collected: 09/19/13 14:15
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.21	1
Chloroform	ND		ug/kg	1.8	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.41	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.27	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
Bromoform	ND		ug/kg	4.7	0.48	1
1,1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.8	0.92	1
Bromomethane	ND		ug/kg	2.3	0.40	1
Vinyl chloride	ND		ug/kg	2.3	0.16	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.28	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.12	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-07
 Client ID: TP-22-13 (6-8')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/19/13 14:15
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
p/m-Xylene	ND		ug/kg	2.3	0.38	1
o-Xylene	ND		ug/kg	2.3	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Styrene	ND		ug/kg	2.3	0.36	1
Dichlorodifluoromethane	ND		ug/kg	12	0.26	1
Acetone	ND		ug/kg	12	3.6	1
Carbon disulfide	ND		ug/kg	12	2.3	1
2-Butanone	ND		ug/kg	12	0.42	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	5.8	0.23	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.21	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.92	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.92	1
Methyl Acetate	ND		ug/kg	23	0.89	1
Cyclohexane	ND		ug/kg	23	1.2	1
1,4-Dioxane	ND		ug/kg	120	20.	1
Freon-113	ND		ug/kg	23	0.32	1
Methyl cyclohexane	ND		ug/kg	4.7	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	97		70-130

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 09/30/13 14:55
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05 Batch: WG640411-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	0.28	J	ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24
Methyl tert butyl ether	ND		ug/kg	2.0	0.10



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 09/30/13 14:55
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05 Batch: WG640411-3					
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Isopropylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
Methyl Acetate	ND		ug/kg	20	0.76
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
Freon-113	ND		ug/kg	20	0.27
Methyl cyclohexane	ND		ug/kg	4.0	1.3

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	99		70-130

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/01/13 09:35
 Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG640457-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	0.31	J	ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24
Methyl tert butyl ether	ND		ug/kg	2.0	0.10

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/01/13 09:35
 Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG640457-3					
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Isopropylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
Methyl Acetate	ND		ug/kg	20	0.76
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
Freon-113	ND		ug/kg	20	0.27
Methyl cyclohexane	ND		ug/kg	4.0	1.3

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	97		70-130

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 10/02/13 09:42

Analyst: MM

TCLP Extraction Date: 10/01/13 13:55

Extraction Date: 10/01/13 13:55

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 03 Batch: WG640659-3					
Chloroform	ND		ug/l	7.5	1.6
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	1.4
1,1-Dichloroethene	ND		ug/l	5.0	1.4
Trichloroethene	ND		ug/l	5.0	1.7
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	98		70-130

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 10/02/13 17:10

Analyst: MM

TCLP Extraction Date: 10/01/13 13:55

Extraction Date: 10/01/13 13:55

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 05 Batch: WG640867-3					
Chloroform	ND		ug/l	7.5	1.6
Carbon tetrachloride	ND		ug/l	5.0	1.3
Tetrachloroethene	ND		ug/l	5.0	1.8
Chlorobenzene	ND		ug/l	5.0	1.8
1,2-Dichloroethane	ND		ug/l	5.0	1.3
Benzene	ND		ug/l	5.0	1.6
Vinyl chloride	ND		ug/l	10	1.4
1,1-Dichloroethene	ND		ug/l	5.0	1.4
Trichloroethene	ND		ug/l	5.0	1.7
1,4-Dichlorobenzene	ND		ug/l	25	1.9
2-Butanone	ND		ug/l	50	19.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	109		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05 Batch: WG640411-1 WG640411-2								
Methylene chloride	104		104		70-130	0		30
1,1-Dichloroethane	106		101		70-130	5		30
Chloroform	104		102		70-130	2		30
Carbon tetrachloride	105		102		70-130	3		30
1,2-Dichloropropane	101		99		70-130	2		30
Dibromochloromethane	91		93		70-130	2		30
1,1,2-Trichloroethane	96		93		70-130	3		30
Tetrachloroethene	98		95		70-130	3		30
Chlorobenzene	96		92		70-130	4		30
Trichlorofluoromethane	110		99		70-139	11		30
1,2-Dichloroethane	103		103		70-130	0		30
1,1,1-Trichloroethane	104		101		70-130	3		30
Bromodichloromethane	102		100		70-130	2		30
trans-1,3-Dichloropropene	89		92		70-130	3		30
cis-1,3-Dichloropropene	97		99		70-130	2		30
1,1-Dichloropropene	101		98		70-130	3		30
Bromoform	88		88		70-130	0		30
1,1,2,2-Tetrachloroethane	86		86		70-130	0		30
Benzene	102		98		70-130	4		30
Toluene	97		90		70-130	7		30
Ethylbenzene	96		92		70-130	4		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05 Batch: WG640411-1 WG640411-2								
Chloromethane	96		85		52-130	12		30
Bromomethane	103		88		57-147	16		30
Vinyl chloride	100		89		67-130	12		30
Chloroethane	128		109		50-151	16		30
1,1-Dichloroethene	101		96		65-135	5		30
trans-1,2-Dichloroethene	105		101		70-130	4		30
Trichloroethene	104		101		70-130	3		30
1,2-Dichlorobenzene	92		90		70-130	2		30
1,3-Dichlorobenzene	93		91		70-130	2		30
1,4-Dichlorobenzene	93		91		70-130	2		30
Methyl tert butyl ether	99		99		66-130	0		30
p/m-Xylene	98		94		70-130	4		30
o-Xylene	98		94		70-130	4		30
cis-1,2-Dichloroethene	104		101		70-130	3		30
Dibromomethane	100		98		70-130	2		30
Styrene	99		95		70-130	4		30
Dichlorodifluoromethane	85		69		30-146	21		30
Acetone	88		105		54-140	18		30
Carbon disulfide	99		95		59-130	4		30
2-Butanone	92		113		70-130	20		30
Vinyl acetate	93		98		70-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05 Batch: WG640411-1 WG640411-2								
4-Methyl-2-pentanone	94		100		70-130	6		30
1,2,3-Trichloropropane	88		89		68-130	1		30
2-Hexanone	85		92		70-130	8		30
Bromochloromethane	107		104		70-130	3		30
2,2-Dichloropropane	104		104		70-130	0		30
1,2-Dibromoethane	91		93		70-130	2		30
1,3-Dichloropropane	93		90		69-130	3		30
1,1,1,2-Tetrachloroethane	95		93		70-130	2		30
Bromobenzene	94		91		70-130	3		30
n-Butylbenzene	92		90		70-130	2		30
sec-Butylbenzene	93		89		70-130	4		30
tert-Butylbenzene	94		90		70-130	4		30
o-Chlorotoluene	92		87		70-130	6		30
p-Chlorotoluene	93		89		70-130	4		30
1,2-Dibromo-3-chloropropane	76		78		68-130	3		30
Hexachlorobutadiene	96		94		67-130	2		30
Isopropylbenzene	94		89		70-130	5		30
p-Isopropyltoluene	94		91		70-130	3		30
Naphthalene	90		94		70-130	4		30
Acrylonitrile	104		104		70-130	0		30
Isopropyl Ether	106		102		66-130	4		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05 Batch: WG640411-1 WG640411-2								
tert-Butyl Alcohol	95		102		70-130	7		30
n-Propylbenzene	93		89		70-130	4		30
1,2,3-Trichlorobenzene	94		97		70-130	3		30
1,2,4-Trichlorobenzene	93		97		70-130	4		30
1,3,5-Trimethylbenzene	94		90		70-130	4		30
1,2,4-Trimethylbenzene	94		90		70-130	4		30
Methyl Acetate	103		105		51-146	2		30
Ethyl Acetate	100		102		70-130	2		30
Acrolein	82		88		70-130	7		30
Cyclohexane	103		91		59-142	12		30
1,4-Dioxane	114		104		65-136	9		30
Freon-113	104		90		50-139	14		30
1,4-Diethylbenzene	94		92		70-130	2		30
4-Ethyltoluene	94		90		70-130	4		30
1,2,4,5-Tetramethylbenzene	95		95		70-130	0		30
Tetrahydrofuran	94		108		66-130	14		30
Ethyl ether	99		99		67-130	0		30
trans-1,4-Dichloro-2-butene	85		90		70-130	6		30
Methyl cyclohexane	99		88		70-130	12		30
Ethyl-Tert-Butyl-Ether	103		101		70-130	2		30
Tertiary-Amyl Methyl Ether	99		98		70-130	1		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05 Batch: WG640411-1 WG640411-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		102		70-130
Toluene-d8	93		92		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	98		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG640457-1 WG640457-2								
Methylene chloride	102		100		70-130	2		30
1,1-Dichloroethane	103		100		70-130	3		30
Chloroform	104		100		70-130	4		30
Carbon tetrachloride	103		99		70-130	4		30
1,2-Dichloropropane	101		98		70-130	3		30
Dibromochloromethane	92		91		70-130	1		30
2-Chloroethylvinyl ether	92		94		70-130	2		30
1,1,2-Trichloroethane	92		90		70-130	2		30
Tetrachloroethene	97		93		70-130	4		30
Chlorobenzene	94		92		70-130	2		30
Trichlorofluoromethane	108		103		70-139	5		30
1,2-Dichloroethane	103		101		70-130	2		30
1,1,1-Trichloroethane	105		101		70-130	4		30
Bromodichloromethane	102		100		70-130	2		30
trans-1,3-Dichloropropene	88		88		70-130	0		30
cis-1,3-Dichloropropene	97		96		70-130	1		30
1,1-Dichloropropene	100		98		70-130	2		30
Bromoform	88		89		70-130	1		30
1,1,2,2-Tetrachloroethane	84		85		70-130	1		30
Benzene	102		97		70-130	5		30
Toluene	93		89		70-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG640457-1 WG640457-2								
Ethylbenzene	94		92		70-130	2		30
Chloromethane	89		83		52-130	7		30
Bromomethane	113		103		57-147	9		30
Vinyl chloride	92		88		67-130	4		30
Chloroethane	129		127		50-151	2		30
1,1-Dichloroethene	99		96		65-135	3		30
trans-1,2-Dichloroethene	103		99		70-130	4		30
Trichloroethene	104		101		70-130	3		30
1,2-Dichlorobenzene	91		90		70-130	1		30
1,3-Dichlorobenzene	92		92		70-130	0		30
1,4-Dichlorobenzene	92		91		70-130	1		30
Methyl tert butyl ether	99		98		66-130	1		30
p/m-Xylene	96		93		70-130	3		30
o-Xylene	96		94		70-130	2		30
cis-1,2-Dichloroethene	104		99		70-130	5		30
Dibromomethane	100		98		70-130	2		30
Styrene	96		94		70-130	2		30
Dichlorodifluoromethane	70		68		30-146	3		30
Acetone	152	Q	165	Q	54-140	8		30
Carbon disulfide	98		93		59-130	5		30
2-Butanone	128		137	Q	70-130	7		30

Lab Control Sample Analysis Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG640457-1 WG640457-2								
Vinyl acetate	90		91		70-130	1		30
4-Methyl-2-pentanone	96		96		70-130	0		30
1,2,3-Trichloropropane	84		84		68-130	0		30
2-Hexanone	107		111		70-130	4		30
Bromochloromethane	106		103		70-130	3		30
2,2-Dichloropropane	106		102		70-130	4		30
1,2-Dibromoethane	91		92		70-130	1		30
1,3-Dichloropropane	89		89		69-130	0		30
1,1,1,2-Tetrachloroethane	94		92		70-130	2		30
Bromobenzene	93		91		70-130	2		30
n-Butylbenzene	94		91		70-130	3		30
sec-Butylbenzene	92		90		70-130	2		30
tert-Butylbenzene	93		91		70-130	2		30
o-Chlorotoluene	89		90		70-130	1		30
p-Chlorotoluene	91		90		70-130	1		30
1,2-Dibromo-3-chloropropane	79		80		68-130	1		30
Hexachlorobutadiene	96		92		67-130	4		30
Isopropylbenzene	93		91		70-130	2		30
p-Isopropyltoluene	94		92		70-130	2		30
Naphthalene	89		89		70-130	0		30
Acrylonitrile	101		99		70-130	2		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG640457-1 WG640457-2								
Isopropyl Ether	103		100		66-130	3		30
tert-Butyl Alcohol	90		90		70-130	0		30
n-Propylbenzene	92		90		70-130	2		30
1,2,3-Trichlorobenzene	95		95		70-130	0		30
1,2,4-Trichlorobenzene	97		95		70-130	2		30
1,3,5-Trimethylbenzene	93		91		70-130	2		30
1,2,4-Trimethylbenzene	93		91		70-130	2		30
Methyl Acetate	96		96		51-146	0		30
Ethyl Acetate	96		96		70-130	0		30
Acrolein	88		86		70-130	2		30
Cyclohexane	97		92		59-142	5		30
1,4-Dioxane	96		99		65-136	3		30
Freon-113	95		92		50-139	3		30
1,4-Diethylbenzene	95		92		70-130	3		30
4-Ethyltoluene	93		91		70-130	2		30
1,2,4,5-Tetramethylbenzene	96		94		70-130	2		30
Tetrahydrofuran	99		89		66-130	11		30
Ethyl ether	99		96		67-130	3		30
trans-1,4-Dichloro-2-butene	82		85		70-130	4		30
Methyl cyclohexane	93		90		70-130	3		30
Ethyl-Tert-Butyl-Ether	102		99		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG640457-1 WG640457-2								
Tertiary-Amyl Methyl Ether	98		99		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		97		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	101		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 03 Batch: WG640659-1 WG640659-2								
Chloroform	92		87		70-130	6		20
Carbon tetrachloride	96		91		63-132	5		20
Tetrachloroethene	93		87		70-130	7		20
Chlorobenzene	97		92		75-130	5		25
1,2-Dichloroethane	94		93		70-130	1		20
Benzene	96		91		70-130	5		25
Vinyl chloride	99		101		55-140	2		20
1,1-Dichloroethene	92		88		61-145	4		25
Trichloroethene	96		93		70-130	3		25
1,4-Dichlorobenzene	96		93		70-130	3		20
2-Butanone	71		82		63-138	14		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		98		70-130
Toluene-d8	91		93		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	97		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 05 Batch: WG640867-1 WG640867-2								
Chloroform	103		103		70-130	0		20
Carbon tetrachloride	115		122		63-132	6		20
Tetrachloroethene	103		102		70-130	1		20
Chlorobenzene	93		92		75-130	1		25
1,2-Dichloroethane	111		111		70-130	0		20
Benzene	94		92		70-130	2		25
Vinyl chloride	108		107		55-140	1		20
1,1-Dichloroethene	100		99		61-145	1		25
Trichloroethene	99		99		70-130	0		25
1,4-Dichlorobenzene	89		90		70-130	1		20
2-Butanone	88		94		63-138	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	122		120		70-130
Toluene-d8	99		97		70-130
4-Bromofluorobenzene	93		93		70-130
Dibromofluoromethane	111		110		70-130

SEMIVOLATILES

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-01
Client ID: TP-4-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/30/13 21:08
Analyst: PS
Percent Solids: 86%

Date Collected: 09/18/13 16:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	39.	1
Hexachlorobenzene	ND		ug/kg	110	35.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	53.	1
2-Chloronaphthalene	ND		ug/kg	190	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	41.	1
2,6-Dinitrotoluene	ND		ug/kg	190	49.	1
Fluoranthene	640		ug/kg	110	35.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	58.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	67.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	58.	1
Hexachlorobutadiene	ND		ug/kg	190	54.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	120	1
Hexachloroethane	ND		ug/kg	150	35.	1
Isophorone	ND		ug/kg	170	51.	1
Naphthalene	ND		ug/kg	190	63.	1
Nitrobenzene	ND		ug/kg	170	45.	1
NDPA/DPA	ND		ug/kg	150	40.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	57.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	50.	1
Butyl benzyl phthalate	ND		ug/kg	190	37.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	47.	1
Diethyl phthalate	ND		ug/kg	190	40.	1
Dimethyl phthalate	ND		ug/kg	190	48.	1
Benzo(a)anthracene	320		ug/kg	110	37.	1
Benzo(a)pyrene	300		ug/kg	150	46.	1
Benzo(b)fluoranthene	350		ug/kg	110	38.	1
Benzo(k)fluoranthene	180		ug/kg	110	36.	1
Chrysene	330		ug/kg	110	37.	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-01
 Client ID: TP-4-13 (0-3')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/18/13 16:30
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/kg	150	36.	1
Anthracene	80	J	ug/kg	110	32.	1
Benzo(ghi)perylene	180		ug/kg	150	40.	1
Fluorene	ND		ug/kg	190	54.	1
Phenanthrene	310		ug/kg	110	37.	1
Dibenzo(a,h)anthracene	50	J	ug/kg	110	37.	1
Indeno(1,2,3-cd)pyrene	190		ug/kg	150	42.	1
Pyrene	530		ug/kg	110	37.	1
Biphenyl	ND		ug/kg	430	63.	1
4-Chloroaniline	ND		ug/kg	190	50.	1
2-Nitroaniline	ND		ug/kg	190	54.	1
3-Nitroaniline	ND		ug/kg	190	52.	1
4-Nitroaniline	ND		ug/kg	190	51.	1
Dibenzofuran	ND		ug/kg	190	64.	1
2-Methylnaphthalene	ND		ug/kg	230	61.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	59.	1
Acetophenone	ND		ug/kg	190	59.	1
Carbazole	43	J	ug/kg	190	41.	1
Benzaldehyde	ND		ug/kg	250	77.	1
Caprolactam	ND		ug/kg	190	52.	1
Atrazine	ND		ug/kg	150	43.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	68		30-120
4-Terphenyl-d14	88		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-02
Client ID: TP-5-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/30/13 21:35
Analyst: PS
Percent Solids: 86%

Date Collected: 09/18/13 11:50
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	39.	1
Hexachlorobenzene	ND		ug/kg	110	35.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	53.	1
2-Chloronaphthalene	ND		ug/kg	190	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	41.	1
2,6-Dinitrotoluene	ND		ug/kg	190	49.	1
Fluoranthene	280		ug/kg	110	35.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	58.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	67.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	58.	1
Hexachlorobutadiene	ND		ug/kg	190	54.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	120	1
Hexachloroethane	ND		ug/kg	150	35.	1
Isophorone	ND		ug/kg	170	51.	1
Naphthalene	ND		ug/kg	190	63.	1
Nitrobenzene	ND		ug/kg	170	45.	1
NDPA/DPA	ND		ug/kg	150	40.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	57.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	50.	1
Butyl benzyl phthalate	ND		ug/kg	190	37.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	47.	1
Diethyl phthalate	ND		ug/kg	190	40.	1
Dimethyl phthalate	ND		ug/kg	190	48.	1
Benzo(a)anthracene	240		ug/kg	110	37.	1
Benzo(a)pyrene	260		ug/kg	150	46.	1
Benzo(b)fluoranthene	270		ug/kg	110	38.	1
Benzo(k)fluoranthene	130		ug/kg	110	36.	1
Chrysene	210		ug/kg	110	37.	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-02
 Client ID: TP-5-13 (0-3')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/18/13 11:50
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/kg	150	36.	1
Anthracene	58	J	ug/kg	110	32.	1
Benzo(ghi)perylene	170		ug/kg	150	40.	1
Fluorene	ND		ug/kg	190	54.	1
Phenanthrene	220		ug/kg	110	37.	1
Dibenzo(a,h)anthracene	55	J	ug/kg	110	37.	1
Indeno(1,2,3-cd)pyrene	180		ug/kg	150	42.	1
Pyrene	260		ug/kg	110	37.	1
Biphenyl	ND		ug/kg	430	63.	1
4-Chloroaniline	ND		ug/kg	190	50.	1
2-Nitroaniline	ND		ug/kg	190	54.	1
3-Nitroaniline	ND		ug/kg	190	52.	1
4-Nitroaniline	ND		ug/kg	190	51.	1
Dibenzofuran	ND		ug/kg	190	64.	1
2-Methylnaphthalene	ND		ug/kg	230	61.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	59.	1
Acetophenone	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	41.	1
Benzaldehyde	ND		ug/kg	250	77.	1
Caprolactam	ND		ug/kg	190	52.	1
Atrazine	ND		ug/kg	150	43.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	76		30-120
4-Terphenyl-d14	87		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-03
Client ID: TP-6-13 (7-9')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/30/13 22:03
Analyst: PS
Percent Solids: 86%

Date Collected: 09/18/13 15:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	39.	1
Hexachlorobenzene	ND		ug/kg	110	35.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	53.	1
2-Chloronaphthalene	ND		ug/kg	190	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	41.	1
2,6-Dinitrotoluene	ND		ug/kg	190	49.	1
Fluoranthene	37	J	ug/kg	110	35.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	58.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	67.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	57.	1
Hexachlorobutadiene	ND		ug/kg	190	54.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	120	1
Hexachloroethane	ND		ug/kg	150	34.	1
Isophorone	ND		ug/kg	170	50.	1
Naphthalene	ND		ug/kg	190	63.	1
Nitrobenzene	ND		ug/kg	170	45.	1
NDPA/DPA	ND		ug/kg	150	40.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	56.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	50.	1
Butyl benzyl phthalate	ND		ug/kg	190	37.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	47.	1
Diethyl phthalate	ND		ug/kg	190	40.	1
Dimethyl phthalate	ND		ug/kg	190	48.	1
Benzo(a)anthracene	ND		ug/kg	110	37.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1
Benzo(b)fluoranthene	ND		ug/kg	110	38.	1
Benzo(k)fluoranthene	ND		ug/kg	110	36.	1
Chrysene	ND		ug/kg	110	37.	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-03
 Client ID: TP-6-13 (7-9')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/18/13 15:30
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/kg	150	36.	1
Anthracene	ND		ug/kg	110	32.	1
Benzo(ghi)perylene	ND		ug/kg	150	39.	1
Fluorene	ND		ug/kg	190	54.	1
Phenanthrene	ND		ug/kg	110	37.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	37.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	42.	1
Pyrene	ND		ug/kg	110	37.	1
Biphenyl	ND		ug/kg	430	63.	1
4-Chloroaniline	ND		ug/kg	190	50.	1
2-Nitroaniline	ND		ug/kg	190	54.	1
3-Nitroaniline	ND		ug/kg	190	52.	1
4-Nitroaniline	ND		ug/kg	190	51.	1
Dibenzofuran	ND		ug/kg	190	63.	1
2-Methylnaphthalene	ND		ug/kg	230	61.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	59.	1
Acetophenone	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	41.	1
Benzaldehyde	ND		ug/kg	250	77.	1
Caprolactam	ND		ug/kg	190	52.	1
Atrazine	ND		ug/kg	150	43.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	77		30-120
4-Terphenyl-d14	85		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-04
Client ID: TP-7-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/30/13 22:31
Analyst: PS
Percent Solids: 87%

Date Collected: 09/19/13 08:40
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	220		ug/kg	110	37.	1
Benzo(a)pyrene	200		ug/kg	150	46.	1
Benzo(b)fluoranthene	250		ug/kg	110	38.	1
Benzo(k)fluoranthene	120		ug/kg	110	36.	1
Chrysene	240		ug/kg	110	37.	1
Anthracene	62	J	ug/kg	110	31.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	36.	1
Indeno(1,2,3-cd)pyrene	130	J	ug/kg	150	42.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	71		30-120
4-Terphenyl-d14	81		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-05
Client ID: TP-9-13 (9-12')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/30/13 22:58
Analyst: PS
Percent Solids: 86%

Date Collected: 09/19/13 09:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	3000		ug/kg	150	39.	1
Hexachlorobenzene	ND		ug/kg	110	35.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	53.	1
2-Chloronaphthalene	ND		ug/kg	190	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	41.	1
2,6-Dinitrotoluene	ND		ug/kg	190	48.	1
Fluoranthene	700		ug/kg	110	35.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	58.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	67.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	57.	1
Hexachlorobutadiene	ND		ug/kg	190	53.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	120	1
Hexachloroethane	ND		ug/kg	150	34.	1
Isophorone	ND		ug/kg	170	50.	1
Naphthalene	13000	E	ug/kg	190	63.	1
Nitrobenzene	ND		ug/kg	170	45.	1
NDPA/DPA	ND		ug/kg	150	40.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	56.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	50.	1
Butyl benzyl phthalate	ND		ug/kg	190	37.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	47.	1
Diethyl phthalate	ND		ug/kg	190	40.	1
Dimethyl phthalate	ND		ug/kg	190	48.	1
Benzo(a)anthracene	100	J	ug/kg	110	37.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1
Benzo(b)fluoranthene	54	J	ug/kg	110	38.	1
Benzo(k)fluoranthene	ND		ug/kg	110	36.	1
Chrysene	110		ug/kg	110	37.	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-05
 Client ID: TP-9-13 (9-12')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/19/13 09:30
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/kg	150	35.	1
Anthracene	960		ug/kg	110	32.	1
Benzo(ghi)perylene	ND		ug/kg	150	39.	1
Fluorene	2400		ug/kg	190	54.	1
Phenanthrene	4800		ug/kg	110	37.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	37.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	42.	1
Pyrene	580		ug/kg	110	37.	1
Biphenyl	2600		ug/kg	430	62.	1
4-Chloroaniline	ND		ug/kg	190	50.	1
2-Nitroaniline	ND		ug/kg	190	53.	1
3-Nitroaniline	ND		ug/kg	190	52.	1
4-Nitroaniline	ND		ug/kg	190	51.	1
Dibenzofuran	1400		ug/kg	190	63.	1
2-Methylnaphthalene	15000	E	ug/kg	230	60.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	59.	1
Acetophenone	ND		ug/kg	190	59.	1
Carbazole	120	J	ug/kg	190	41.	1
Benzaldehyde	ND		ug/kg	250	77.	1
Caprolactam	ND		ug/kg	190	52.	1
Atrazine	ND		ug/kg	150	43.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	76		30-120
4-Terphenyl-d14	82		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-05 D
Client ID: TP-9-13 (9-12')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 10/01/13 09:40
Analyst: PS
Percent Solids: 86%

Date Collected: 09/19/13 09:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Naphthalene	17000		ug/kg	950	310	5
2-Methylnaphthalene	18000		ug/kg	1100	300	5

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-06
Client ID: TP-13-13 (8-9')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/30/13 23:26
Analyst: PS
Percent Solids: 86%

Date Collected: 09/19/13 16:00
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	240		ug/kg	150	39.	1
Hexachlorobenzene	ND		ug/kg	110	35.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	53.	1
2-Chloronaphthalene	ND		ug/kg	190	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	41.	1
2,6-Dinitrotoluene	ND		ug/kg	190	49.	1
Fluoranthene	ND		ug/kg	110	35.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	58.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	67.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	58.	1
Hexachlorobutadiene	ND		ug/kg	190	54.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	120	1
Hexachloroethane	ND		ug/kg	150	35.	1
Isophorone	ND		ug/kg	170	51.	1
Naphthalene	ND		ug/kg	190	63.	1
Nitrobenzene	ND		ug/kg	170	45.	1
NDPA/DPA	ND		ug/kg	150	40.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	57.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	50.	1
Butyl benzyl phthalate	ND		ug/kg	190	37.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	47.	1
Diethyl phthalate	ND		ug/kg	190	40.	1
Dimethyl phthalate	ND		ug/kg	190	48.	1
Benzo(a)anthracene	ND		ug/kg	110	37.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1
Benzo(b)fluoranthene	ND		ug/kg	110	38.	1
Benzo(k)fluoranthene	ND		ug/kg	110	36.	1
Chrysene	ND		ug/kg	110	37.	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-06
 Client ID: TP-13-13 (8-9')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/19/13 16:00
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/kg	150	36.	1
Anthracene	ND		ug/kg	110	32.	1
Benzo(ghi)perylene	ND		ug/kg	150	40.	1
Fluorene	130	J	ug/kg	190	54.	1
Phenanthrene	ND		ug/kg	110	37.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	37.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	42.	1
Pyrene	ND		ug/kg	110	37.	1
Biphenyl	ND		ug/kg	430	63.	1
4-Chloroaniline	ND		ug/kg	190	50.	1
2-Nitroaniline	ND		ug/kg	190	54.	1
3-Nitroaniline	ND		ug/kg	190	52.	1
4-Nitroaniline	ND		ug/kg	190	51.	1
Dibenzofuran	ND		ug/kg	190	64.	1
2-Methylnaphthalene	ND		ug/kg	230	61.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	59.	1
Acetophenone	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	41.	1
Benzaldehyde	ND		ug/kg	250	77.	1
Caprolactam	ND		ug/kg	190	52.	1
Atrazine	ND		ug/kg	150	43.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	76		30-120
4-Terphenyl-d14	79		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-07
Client ID: TP-22-13 (6-8')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/30/13 23:54
Analyst: PS
Percent Solids: 86%

Date Collected: 09/19/13 14:15
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	39.	1
Hexachlorobenzene	ND		ug/kg	110	36.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	54.	1
2-Chloronaphthalene	ND		ug/kg	190	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	41.	1
2,6-Dinitrotoluene	ND		ug/kg	190	49.	1
Fluoranthene	120		ug/kg	110	35.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	58.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	67.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	58.	1
Hexachlorobutadiene	ND		ug/kg	190	54.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	120	1
Hexachloroethane	ND		ug/kg	150	35.	1
Isophorone	ND		ug/kg	170	51.	1
Naphthalene	ND		ug/kg	190	64.	1
Nitrobenzene	ND		ug/kg	170	46.	1
NDPA/DPA	ND		ug/kg	150	40.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	57.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	50.	1
Butyl benzyl phthalate	ND		ug/kg	190	37.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	47.	1
Diethyl phthalate	ND		ug/kg	190	40.	1
Dimethyl phthalate	ND		ug/kg	190	48.	1
Benzo(a)anthracene	64	J	ug/kg	110	37.	1
Benzo(a)pyrene	53	J	ug/kg	150	47.	1
Benzo(b)fluoranthene	65	J	ug/kg	110	39.	1
Benzo(k)fluoranthene	ND		ug/kg	110	36.	1
Chrysene	66	J	ug/kg	110	38.	1

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-07
 Client ID: TP-22-13 (6-8')
 Sample Location: 295 MARYLAND ST

Date Collected: 09/19/13 14:15
 Date Received: 09/20/13
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthylene	ND		ug/kg	150	36.	1
Anthracene	ND		ug/kg	110	32.	1
Benzo(ghi)perylene	ND		ug/kg	150	40.	1
Fluorene	ND		ug/kg	190	55.	1
Phenanthrene	78	J	ug/kg	110	37.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	37.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	42.	1
Pyrene	100	J	ug/kg	110	37.	1
Biphenyl	ND		ug/kg	440	63.	1
4-Chloroaniline	ND		ug/kg	190	50.	1
2-Nitroaniline	ND		ug/kg	190	54.	1
3-Nitroaniline	ND		ug/kg	190	53.	1
4-Nitroaniline	ND		ug/kg	190	52.	1
Dibenzofuran	ND		ug/kg	190	64.	1
2-Methylnaphthalene	ND		ug/kg	230	61.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	59.	1
Acetophenone	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	41.	1
Benzaldehyde	ND		ug/kg	250	77.	1
Caprolactam	ND		ug/kg	190	53.	1
Atrazine	ND		ug/kg	150	43.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	74		30-120
4-Terphenyl-d14	91		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-08
Client ID: TP-23-13 (0.5-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 10/01/13 00:22
Analyst: PS
Percent Solids: 87%

Date Collected: 09/19/13 15:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	52	J	ug/kg	110	36.	1
Benzo(a)pyrene	57	J	ug/kg	150	46.	1
Benzo(b)fluoranthene	77	J	ug/kg	110	38.	1
Benzo(k)fluoranthene	40	J	ug/kg	110	36.	1
Chrysene	60	J	ug/kg	110	36.	1
Anthracene	ND		ug/kg	110	31.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	36.	1
Indeno(1,2,3-cd)pyrene	42	J	ug/kg	150	41.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	67		30-120
4-Terphenyl-d14	80		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-09
Client ID: TP-24-13 (0.5-4')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 10/01/13 00:50
Analyst: PS
Percent Solids: 88%

Date Collected: 09/19/13 17:00
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	110	36.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	ND		ug/kg	110	38.	1
Benzo(k)fluoranthene	ND		ug/kg	110	35.	1
Chrysene	ND		ug/kg	110	36.	1
Anthracene	ND		ug/kg	110	31.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	36.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	41.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	78		30-120
4-Terphenyl-d14	83		18-120

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-10 D
Client ID: TP-25-13 (0.5-4')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 10/01/13 01:18
Analyst: PS
Percent Solids: 86%

Date Collected: 09/20/13 11:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	4800		ug/kg	450	150	4
Benzo(a)pyrene	3400		ug/kg	600	180	4
Benzo(b)fluoranthene	4300		ug/kg	450	150	4
Benzo(k)fluoranthene	2000		ug/kg	450	140	4
Chrysene	4200		ug/kg	450	150	4
Anthracene	4000		ug/kg	450	120	4
Dibenzo(a,h)anthracene	560		ug/kg	450	150	4
Indeno(1,2,3-cd)pyrene	1900		ug/kg	600	170	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	89		30-120
4-Terphenyl-d14	75		18-120

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 09/25/13 20:17
 Analyst: PS

Extraction Method: EPA 3546
 Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG638721-1					
Acenaphthene	ND		ug/kg	130	34.
Hexachlorobenzene	ND		ug/kg	100	31.
Bis(2-chloroethyl)ether	ND		ug/kg	150	46.
2-Chloronaphthalene	ND		ug/kg	170	54.
3,3'-Dichlorobenzidine	ND		ug/kg	170	44.
2,4-Dinitrotoluene	ND		ug/kg	170	36.
2,6-Dinitrotoluene	ND		ug/kg	170	42.
Fluoranthene	ND		ug/kg	100	30.
4-Chlorophenyl phenyl ether	ND		ug/kg	170	50.
4-Bromophenyl phenyl ether	ND		ug/kg	170	38.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	58.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	50.
Hexachlorobutadiene	ND		ug/kg	170	47.
Hexachlorocyclopentadiene	ND		ug/kg	480	110
Hexachloroethane	ND		ug/kg	130	30.
Isophorone	ND		ug/kg	150	44.
Naphthalene	ND		ug/kg	170	55.
Nitrobenzene	ND		ug/kg	150	40.
NDPA/DPA	ND		ug/kg	130	35.
n-Nitrosodi-n-propylamine	ND		ug/kg	170	50.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	44.
Butyl benzyl phthalate	ND		ug/kg	170	32.
Di-n-butylphthalate	ND		ug/kg	170	32.
Di-n-octylphthalate	ND		ug/kg	170	41.
Diethyl phthalate	ND		ug/kg	170	35.
Dimethyl phthalate	ND		ug/kg	170	42.
Benzo(a)anthracene	ND		ug/kg	100	32.
Benzo(a)pyrene	ND		ug/kg	130	41.
Benzo(b)fluoranthene	ND		ug/kg	100	34.
Benzo(k)fluoranthene	ND		ug/kg	100	32.
Chrysene	ND		ug/kg	100	33.

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 09/25/13 20:17
 Analyst: PS

Extraction Method: EPA 3546
 Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG638721-1					
Acenaphthylene	ND		ug/kg	130	31.
Anthracene	ND		ug/kg	100	28.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	170	48.
Phenanthrene	ND		ug/kg	100	32.
Dibenzo(a,h)anthracene	ND		ug/kg	100	32.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	37.
Pyrene	ND		ug/kg	100	32.
Biphenyl	ND		ug/kg	380	55.
4-Chloroaniline	ND		ug/kg	170	44.
2-Nitroaniline	ND		ug/kg	170	47.
3-Nitroaniline	ND		ug/kg	170	46.
4-Nitroaniline	ND		ug/kg	170	45.
Dibenzofuran	ND		ug/kg	170	55.
2-Methylnaphthalene	ND		ug/kg	200	53.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	51.
Acetophenone	ND		ug/kg	170	51.
2,4,6-Trichlorophenol	ND		ug/kg	100	31.
p-Chloro-m-cresol	ND		ug/kg	170	48.
2-Chlorophenol	ND		ug/kg	170	50.
2,4-Dichlorophenol	ND		ug/kg	150	54.
2,4-Dimethylphenol	ND		ug/kg	170	50.
2-Nitrophenol	ND		ug/kg	360	52.
4-Nitrophenol	ND		ug/kg	230	54.
2,4-Dinitrophenol	ND		ug/kg	800	230
4,6-Dinitro-o-cresol	ND		ug/kg	430	61.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	170	49.
2-Methylphenol	ND		ug/kg	170	53.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	54.
2,4,5-Trichlorophenol	ND		ug/kg	170	54.

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 09/25/13 20:17
 Analyst: PS

Extraction Method: EPA 3546
 Extraction Date: 09/24/13 18:30

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-10 Batch: WG638721-1					
Carbazole	ND		ug/kg	170	36.
Benzaldehyde	ND		ug/kg	220	67.
Caprolactam	ND		ug/kg	170	46.
Atrazine	ND		ug/kg	130	38.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	170	28.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	70		0-136
4-Terphenyl-d14	80		18-120

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG638721-2 WG638721-3								
Acenaphthene	75		79		31-137	5		50
Benzidine	27		20			30		50
n-Nitrosodimethylamine	71		74			4		50
1,2,4-Trichlorobenzene	67		70		38-107	4		50
Hexachlorobenzene	80		82		40-140	2		50
Bis(2-chloroethyl)ether	70		73		40-140	4		50
2-Chloronaphthalene	77		80		40-140	4		50
1,2-Dichlorobenzene	68		71		40-140	4		50
1,3-Dichlorobenzene	68		71		40-140	4		50
1,4-Dichlorobenzene	68		70		28-104	3		50
3,3'-Dichlorobenzidine	62		59		40-140	5		50
2,4-Dinitrotoluene	87		88		28-89	1		50
2,6-Dinitrotoluene	88		91		40-140	3		50
Fluoranthene	86		86		40-140	0		50
4-Chlorophenyl phenyl ether	76		80		40-140	5		50
4-Bromophenyl phenyl ether	80		84		40-140	5		50
Azobenzene	86		89		40-140	3		50
Bis(2-chloroisopropyl)ether	72		75		40-140	4		50
Bis(2-chloroethoxy)methane	74		77		40-117	4		50
Hexachlorobutadiene	65		69		40-140	6		50
Hexachlorocyclopentadiene	71		73		40-140	3		50

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG638721-2 WG638721-3								
Hexachloroethane	66		71		40-140	7		50
Isophorone	76		79		40-140	4		50
Naphthalene	72		73		40-140	1		50
Nitrobenzene	70		71		40-140	1		50
NDPA/DPA	82		85			4		50
n-Nitrosodi-n-propylamine	74		77		32-121	4		50
Bis(2-ethylhexyl)phthalate	98		101		40-140	3		50
Butyl benzyl phthalate	93		93		40-140	0		50
Di-n-butylphthalate	90		92		40-140	2		50
Di-n-octylphthalate	101		103		40-140	2		50
Diethyl phthalate	85		87		40-140	2		50
Dimethyl phthalate	81		84		40-140	4		50
Benzo(a)anthracene	87		87		40-140	0		50
Benzo(a)pyrene	84		87		40-140	4		50
Benzo(b)fluoranthene	78		80		40-140	3		50
Benzo(k)fluoranthene	91		94		40-140	3		50
Chrysene	86		90		40-140	5		50
Acenaphthylene	80		84		40-140	5		50
Anthracene	85		88		40-140	3		50
Benzo(ghi)perylene	82		82		40-140	0		50
Fluorene	80		83		40-140	4		50

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG638721-2 WG638721-3								
Phenanthrene	83		85		40-140	2		50
Dibenzo(a,h)anthracene	84		85		40-140	1		50
Indeno(1,2,3-cd)pyrene	79		80		40-140	1		50
Pyrene	85		86		35-142	1		50
Biphenyl	83		86			4		50
Aniline	53		53		40-140	0		50
4-Chloroaniline	60		63		40-140	5		50
2-Nitroaniline	91		95		47-134	4		50
3-Nitroaniline	48		44		26-129	9		50
4-Nitroaniline	79		83		41-125	5		50
Dibenzofuran	78		82		40-140	5		50
2-Methylnaphthalene	72		75		40-140	4		50
1,2,4,5-Tetrachlorobenzene	79		81		40-117	3		50
Acetophenone	81		83		14-144	2		50
2,4,6-Trichlorophenol	83		89		30-130	7		50
p-Chloro-m-cresol	90		94		26-103	4		50
2-Chlorophenol	72		76		25-102	5		50
2,4-Dichlorophenol	76		81		30-130	6		50
2,4-Dimethylphenol	80		84		30-130	5		50
2-Nitrophenol	74		78		30-130	5		50
4-Nitrophenol	98		102		11-114	4		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG638721-2 WG638721-3								
2,4-Dinitrophenol	76		81		4-130	6		50
4,6-Dinitro-o-cresol	82		85		10-130	4		50
Pentachlorophenol	78		82		17-109	5		50
Phenol	76		79		26-90	4		50
2-Methylphenol	76		80		30-130.	5		50
3-Methylphenol/4-Methylphenol	82		86		30-130	5		50
2,4,5-Trichlorophenol	89		91		30-130	2		50
Benzoic Acid	38		40			5		50
Benzyl Alcohol	76		79		40-140	4		50
Carbazole	86		88		54-128	2		50
Benzaldehyde	82		86			5		50
Caprolactam	97		101			4		50
Atrazine	101		104			3		50
2,3,4,6-Tetrachlorophenol	86		92			7		50
Pyridine	58		57		10-93	2		50
Parathion, ethyl	118		122		40-140	3		50

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-10 Batch: WG638721-2 WG638721-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	76		78		25-120
Phenol-d6	77		79		10-120
Nitrobenzene-d5	75		77		23-120
2-Fluorobiphenyl	79		81		30-120
2,4,6-Tribromophenol	87		90		0-136
4-Terphenyl-d14	85		86		18-120

PCBS

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-01
Client ID: TP-4-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/25/13 21:29
Analyst: JW
Percent Solids: 86%

Date Collected: 09/18/13 16:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/23/13 16:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/25/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.6	7.24	1	A
Aroclor 1221	ND		ug/kg	36.6	11.0	1	A
Aroclor 1232	ND		ug/kg	36.6	7.78	1	A
Aroclor 1242	ND		ug/kg	36.6	6.95	1	A
Aroclor 1248	ND		ug/kg	36.6	4.43	1	A
Aroclor 1254	ND		ug/kg	36.6	5.78	1	A
Aroclor 1260	ND		ug/kg	36.6	6.36	1	A
Aroclor 1262	ND		ug/kg	36.6	2.71	1	A
Aroclor 1268	ND		ug/kg	36.6	5.31	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-02
Client ID: TP-5-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/25/13 21:42
Analyst: JW
Percent Solids: 86%

Date Collected: 09/18/13 11:50
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/23/13 16:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/25/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.6	7.23	1	A
Aroclor 1221	ND		ug/kg	36.6	11.0	1	A
Aroclor 1232	ND		ug/kg	36.6	7.78	1	A
Aroclor 1242	ND		ug/kg	36.6	6.95	1	A
Aroclor 1248	ND		ug/kg	36.6	4.43	1	A
Aroclor 1254	ND		ug/kg	36.6	5.77	1	A
Aroclor 1260	ND		ug/kg	36.6	6.36	1	A
Aroclor 1262	ND		ug/kg	36.6	2.71	1	A
Aroclor 1268	ND		ug/kg	36.6	5.31	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-04
Client ID: TP-7-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/25/13 21:54
Analyst: JW
Percent Solids: 87%

Date Collected: 09/19/13 08:40
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/23/13 16:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/25/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.4	7.38	1	A
Aroclor 1221	ND		ug/kg	37.4	11.3	1	A
Aroclor 1232	ND		ug/kg	37.4	7.94	1	A
Aroclor 1242	ND		ug/kg	37.4	7.10	1	A
Aroclor 1248	ND		ug/kg	37.4	4.52	1	A
Aroclor 1254	ND		ug/kg	37.4	5.89	1	A
Aroclor 1260	ND		ug/kg	37.4	6.49	1	A
Aroclor 1262	ND		ug/kg	37.4	2.76	1	A
Aroclor 1268	ND		ug/kg	37.4	5.42	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	95		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-07
Client ID: TP-22-13 (6-8')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/25/13 22:06
Analyst: JW
Percent Solids: 86%

Date Collected: 09/19/13 14:15
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/23/13 16:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/25/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.3	7.36	1	A
Aroclor 1221	ND		ug/kg	37.3	11.2	1	A
Aroclor 1232	ND		ug/kg	37.3	7.92	1	A
Aroclor 1242	ND		ug/kg	37.3	7.07	1	A
Aroclor 1248	ND		ug/kg	37.3	4.51	1	A
Aroclor 1254	ND		ug/kg	37.3	5.88	1	A
Aroclor 1260	ND		ug/kg	37.3	6.47	1	A
Aroclor 1262	ND		ug/kg	37.3	2.76	1	A
Aroclor 1268	ND		ug/kg	37.3	5.41	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-08
Client ID: TP-23-13 (0.5-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/25/13 22:19
Analyst: JW
Percent Solids: 87%

Date Collected: 09/19/13 15:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/23/13 16:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/25/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.6	7.23	1	A
Aroclor 1221	ND		ug/kg	36.6	11.0	1	A
Aroclor 1232	ND		ug/kg	36.6	7.77	1	A
Aroclor 1242	ND		ug/kg	36.6	6.94	1	A
Aroclor 1248	ND		ug/kg	36.6	4.43	1	A
Aroclor 1254	ND		ug/kg	36.6	5.77	1	A
Aroclor 1260	ND		ug/kg	36.6	6.35	1	A
Aroclor 1262	ND		ug/kg	36.6	2.71	1	A
Aroclor 1268	ND		ug/kg	36.6	5.31	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	89		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-09
Client ID: TP-24-13 (0.5-4')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/25/13 22:31
Analyst: JW
Percent Solids: 88%

Date Collected: 09/19/13 17:00
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/23/13 16:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/25/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.4	7.19	1	A
Aroclor 1221	ND		ug/kg	36.4	11.0	1	A
Aroclor 1232	ND		ug/kg	36.4	7.74	1	A
Aroclor 1242	ND		ug/kg	36.4	6.91	1	A
Aroclor 1248	ND		ug/kg	36.4	4.41	1	A
Aroclor 1254	ND		ug/kg	36.4	5.74	1	A
Aroclor 1260	ND		ug/kg	36.4	6.32	1	A
Aroclor 1262	ND		ug/kg	36.4	2.69	1	A
Aroclor 1268	ND		ug/kg	36.4	5.28	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-10
Client ID: TP-25-13 (0.5-4')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/25/13 22:43
Analyst: JW
Percent Solids: 86%

Date Collected: 09/20/13 11:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/23/13 16:55
Cleanup Method1: EPA 3665A
Cleanup Date1: 09/25/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.7	7.25	1	A
Aroclor 1221	ND		ug/kg	36.7	11.1	1	A
Aroclor 1232	ND		ug/kg	36.7	7.79	1	A
Aroclor 1242	ND		ug/kg	36.7	6.96	1	A
Aroclor 1248	ND		ug/kg	36.7	4.44	1	A
Aroclor 1254	ND		ug/kg	36.7	5.78	1	A
Aroclor 1260	ND		ug/kg	36.7	6.37	1	A
Aroclor 1262	ND		ug/kg	36.7	2.71	1	A
Aroclor 1268	ND		ug/kg	36.7	5.32	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 09/25/13 18:49
 Analyst: JW

Extraction Method: EPA 3546
 Extraction Date: 09/23/13 16:55
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 09/25/13
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 09/25/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02,04,07-10 Batch: WG638357-1						
Aroclor 1016	ND		ug/kg	32.5	6.42	A
Aroclor 1221	ND		ug/kg	32.5	9.81	A
Aroclor 1232	ND		ug/kg	32.5	6.91	A
Aroclor 1242	ND		ug/kg	32.5	6.17	A
Aroclor 1248	ND		ug/kg	32.5	3.94	A
Aroclor 1254	ND		ug/kg	32.5	5.13	A
Aroclor 1260	ND		ug/kg	32.5	5.65	A
Aroclor 1262	ND		ug/kg	32.5	2.40	A
Aroclor 1268	ND		ug/kg	32.5	4.72	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	72		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02,04,07-10 Batch: WG638357-2 WG638357-3									
Aroclor 1016	70		73		40-140	4		50	A
Aroclor 1260	66		69		40-140	4		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		71		30-150	A
Decachlorobiphenyl	65		68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		71		30-150	B
Decachlorobiphenyl	71		72		30-150	B

PESTICIDES

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-01
Client ID: TP-4-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/26/13 16:43
Analyst: SH
Percent Solids: 86%

Date Collected: 09/18/13 16:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/25/13 11:22
Cleanup Method1: EPA 3620B
Cleanup Date1: 09/26/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.81	0.355	1	A
Lindane	ND		ug/kg	0.756	0.338	1	A
Alpha-BHC	ND		ug/kg	0.756	0.215	1	A
Beta-BHC	ND		ug/kg	1.81	0.688	1	A
Heptachlor	ND		ug/kg	0.907	0.406	1	A
Aldrin	ND		ug/kg	1.81	0.638	1	A
Heptachlor epoxide	ND		ug/kg	3.40	1.02	1	A
Endrin	ND		ug/kg	0.756	0.310	1	A
Endrin aldehyde	ND		ug/kg	2.27	0.793	1	A
Endrin ketone	ND		ug/kg	1.81	0.467	1	A
Dieldrin	ND		ug/kg	1.13	0.567	1	A
4,4'-DDE	ND		ug/kg	1.81	0.419	1	A
4,4'-DDD	4.66		ug/kg	1.81	0.647	1	B
4,4'-DDT	ND		ug/kg	3.40	1.46	1	A
Endosulfan I	ND		ug/kg	1.81	0.428	1	A
Endosulfan II	ND		ug/kg	1.81	0.606	1	A
Endosulfan sulfate	ND		ug/kg	0.756	0.345	1	A
Methoxychlor	ND		ug/kg	3.40	1.06	1	A
Toxaphene	ND		ug/kg	34.0	9.52	1	A
cis-Chlordane	ND		ug/kg	2.27	0.632	1	A
trans-Chlordane	ND		ug/kg	2.27	0.598	1	A
Chlordane	ND		ug/kg	14.7	6.01	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	81		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-01
Client ID: TP-4-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8151A(M)
Analytical Date: 09/27/13 16:59
Analyst: SH
Percent Solids: 86%

Date Collected: 09/18/13 16:30
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 09/26/13 06:32
Methylation Date: 09/26/13 23:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		mg/kg	0.188	0.023	1	A
2,4,5-T	ND		mg/kg	0.188	0.012	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.188	0.010	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	78		30-150	A
DCAA	73		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-02
Client ID: TP-5-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/26/13 16:56
Analyst: SH
Percent Solids: 86%

Date Collected: 09/18/13 11:50
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/25/13 11:22
Cleanup Method1: EPA 3620B
Cleanup Date1: 09/26/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.359	1	A
Lindane	ND		ug/kg	0.765	0.342	1	A
Alpha-BHC	ND		ug/kg	0.765	0.217	1	A
Beta-BHC	ND		ug/kg	1.84	0.696	1	A
Heptachlor	ND		ug/kg	0.918	0.411	1	A
Aldrin	ND		ug/kg	1.84	0.646	1	A
Heptachlor epoxide	ND		ug/kg	3.44	1.03	1	A
Endrin	ND		ug/kg	0.765	0.314	1	A
Endrin aldehyde	ND		ug/kg	2.29	0.803	1	A
Endrin ketone	ND		ug/kg	1.84	0.473	1	A
Dieldrin	ND		ug/kg	1.15	0.574	1	A
4,4'-DDE	ND		ug/kg	1.84	0.424	1	A
4,4'-DDD	ND		ug/kg	1.84	0.655	1	A
4,4'-DDT	ND		ug/kg	3.44	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.434	1	A
Endosulfan II	ND		ug/kg	1.84	0.613	1	A
Endosulfan sulfate	ND		ug/kg	0.765	0.349	1	A
Methoxychlor	ND		ug/kg	3.44	1.07	1	A
Toxaphene	ND		ug/kg	34.4	9.64	1	A
cis-Chlordane	ND		ug/kg	2.29	0.639	1	A
trans-Chlordane	ND		ug/kg	2.29	0.606	1	A
Chlordane	ND		ug/kg	14.9	6.08	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		30-150	A
Decachlorobiphenyl	106		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-02
Client ID: TP-5-13 (0-3')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8151A(M)
Analytical Date: 09/26/13 16:09
Analyst: SH
Percent Solids: 86%

Date Collected: 09/18/13 11:50
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 09/24/13 00:42
Methylation Date: 09/26/13 09:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		mg/kg	0.193	0.024	1	A
2,4,5-T	ND		mg/kg	0.193	0.012	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.193	0.011	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	78		30-150	A
DCAA	47		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-07
Client ID: TP-22-13 (6-8')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/26/13 17:09
Analyst: SH
Percent Solids: 86%

Date Collected: 09/19/13 14:15
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 09/25/13 11:49
Cleanup Method1: EPA 3620B
Cleanup Date1: 09/26/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.79	0.351	1	A
Lindane	ND		ug/kg	0.747	0.334	1	A
Alpha-BHC	ND		ug/kg	0.747	0.212	1	A
Beta-BHC	ND		ug/kg	1.79	0.680	1	A
Heptachlor	ND		ug/kg	0.897	0.402	1	A
Aldrin	ND		ug/kg	1.79	0.632	1	A
Heptachlor epoxide	ND		ug/kg	3.36	1.01	1	A
Endrin	ND		ug/kg	0.747	0.306	1	A
Endrin aldehyde	ND		ug/kg	2.24	0.785	1	A
Endrin ketone	ND		ug/kg	1.79	0.462	1	A
Dieldrin	ND		ug/kg	1.12	0.560	1	A
4,4'-DDE	ND		ug/kg	1.79	0.415	1	A
4,4'-DDD	ND		ug/kg	1.79	0.640	1	A
4,4'-DDT	ND		ug/kg	3.36	1.44	1	A
Endosulfan I	ND		ug/kg	1.79	0.424	1	A
Endosulfan II	ND		ug/kg	1.79	0.599	1	A
Endosulfan sulfate	ND		ug/kg	0.747	0.342	1	A
Methoxychlor	ND		ug/kg	3.36	1.05	1	A
Toxaphene	ND		ug/kg	33.6	9.42	1	A
cis-Chlordane	ND		ug/kg	2.24	0.625	1	A
trans-Chlordane	ND		ug/kg	2.24	0.592	1	A
Chlordane	ND		ug/kg	14.6	5.94	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	83		30-150	B

Project Name: 295 MARYLAND ST**Lab Number:** L1318716**Project Number:** 0222-001-101**Report Date:** 10/03/13**SAMPLE RESULTS**

Lab ID: L1318716-07
Client ID: TP-22-13 (6-8')
Sample Location: 295 MARYLAND ST
Matrix: Soil
Analytical Method: 1,8151A(M)
Analytical Date: 09/27/13 16:39
Analyst: SH
Percent Solids: 86%

Date Collected: 09/19/13 14:15
Date Received: 09/20/13
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 09/26/13 06:32
Methylation Date: 09/26/13 23:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		mg/kg	0.192	0.023	1	A
2,4,5-T	ND		mg/kg	0.192	0.012	1	A
2,4,5-TP (Silvex)	ND		mg/kg	0.192	0.011	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	68		30-150	A
DCAA	66		30-150	B

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A(M)
 Analytical Date: 09/26/13 14:47
 Analyst: SH

Extraction Method: EPA 8151A
 Extraction Date: 09/24/13 00:42

Methylation Date: 09/26/13 09:47

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 02 Batch: WG638423-1						
MCPPP	ND		mg/kg	3.33	0.955	A
MCPA	ND		mg/kg	3.33	1.04	A
Dalapon	ND		mg/kg	0.033	0.010	A
Dicamba	ND		mg/kg	0.033	0.010	A
Dichloroprop	ND		mg/kg	0.033	0.011	A
2,4-D	ND		mg/kg	0.166	0.020	A
2,4-DB	ND		mg/kg	0.166	0.012	A
2,4,5-T	ND		mg/kg	0.166	0.010	A
2,4,5-TP (Silvex)	ND		mg/kg	0.166	0.009	A
Dinoseb	ND		mg/kg	0.033	0.012	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	59		30-150	A
DCAA	31		30-150	B

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 09/26/13 10:55
 Analyst: SH

Extraction Method: EPA 3546
 Extraction Date: 09/25/13 11:22
 Cleanup Method1: EPA 3620B
 Cleanup Date1: 09/26/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02,07 Batch: WG638908-1						
Delta-BHC	ND		ug/kg	1.59	0.312	A
Lindane	ND		ug/kg	0.664	0.297	A
Alpha-BHC	ND		ug/kg	0.664	0.188	A
Beta-BHC	ND		ug/kg	1.59	0.604	A
Heptachlor	ND		ug/kg	0.796	0.357	A
Aldrin	ND		ug/kg	1.59	0.561	A
Heptachlor epoxide	ND		ug/kg	2.99	0.896	A
Endrin	ND		ug/kg	0.664	0.272	A
Endrin aldehyde	ND		ug/kg	1.99	0.697	A
Endrin ketone	ND		ug/kg	1.59	0.410	A
Dieldrin	ND		ug/kg	0.995	0.498	A
4,4'-DDE	ND		ug/kg	1.59	0.368	A
4,4'-DDD	ND		ug/kg	1.59	0.568	A
4,4'-DDT	ND		ug/kg	2.99	1.28	A
Endosulfan I	ND		ug/kg	1.59	0.376	A
Endosulfan II	ND		ug/kg	1.59	0.532	A
Endosulfan sulfate	ND		ug/kg	0.664	0.303	A
Methoxychlor	ND		ug/kg	2.99	0.929	A
Toxaphene	ND		ug/kg	29.9	8.36	A
cis-Chlordane	ND		ug/kg	1.99	0.555	A
trans-Chlordane	ND		ug/kg	1.99	0.526	A
Chlordane	ND		ug/kg	12.9	5.28	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	106		30-150	A
Decachlorobiphenyl	99		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	77		30-150	B



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A(M)
 Analytical Date: 09/27/13 07:17
 Analyst: SH

Extraction Method: EPA 8151A
 Extraction Date: 09/26/13 06:32

Methylation Date: 09/26/13 14:39

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01,07 Batch: WG639096-1						
MCPP	ND		mg/kg	3.33	0.956	A
MCPA	ND		mg/kg	3.33	1.04	A
Dalapon	ND		mg/kg	0.033	0.010	A
Dicamba	ND		mg/kg	0.033	0.010	A
Dichloroprop	ND		mg/kg	0.033	0.011	A
2,4-D	ND		mg/kg	0.166	0.020	A
2,4-DB	ND		mg/kg	0.166	0.012	A
2,4,5-T	ND		mg/kg	0.166	0.010	A
2,4,5-TP (Silvex)	ND		mg/kg	0.166	0.009	A
Dinoseb	ND		mg/kg	0.033	0.012	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	94		30-150	A
DCAA	60		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 02 Batch: WG638423-2 WG638423-3									
MCPP	105		104		30-150	1		30	A
MCPA	178	Q	90		30-150	66	Q	30	A
Dalapon	84		58		30-150	37	Q	30	A
Dicamba	70		71		30-150	1		30	A
Dichloroprop	88		87		30-150	1		30	A
2,4-D	89		83		30-150	7		30	A
2,4-DB	91		97		30-150	6		30	A
2,4,5-T	73		79		30-150	8		30	A
2,4,5-TP (Silvex)	71		75		30-150	5		30	A
Dinoseb	8	Q	9	Q	30-150	9		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	68		69		30-150	A
DCAA	43		51		30-150	B

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02,07 Batch: WG638908-2 WG638908-3									
Delta-BHC	119		123		30-150	3		30	A
Lindane	103		109		30-150	6		30	A
Alpha-BHC	101		105		30-150	4		30	A
Beta-BHC	91		95		30-150	4		30	A
Heptachlor	102		109		30-150	7		30	A
Aldrin	104		111		30-150	7		30	A
Heptachlor epoxide	100		105		30-150	5		30	A
Endrin	112		121		30-150	8		30	A
Endrin aldehyde	90		91		30-150	1		30	A
Endrin ketone	108		114		30-150	5		30	A
Dieldrin	104		110		30-150	6		30	A
4,4'-DDE	104		112		30-150	7		30	A
4,4'-DDD	107		114		30-150	6		30	A
4,4'-DDT	110		115		30-150	4		30	A
Endosulfan I	104		111		30-150	7		30	A
Endosulfan II	115		120		30-150	4		30	A
Endosulfan sulfate	119		125		30-150	5		30	A
Methoxychlor	93		99		30-150	6		30	A
cis-Chlordane	102		107		30-150	5		30	A
trans-Chlordane	102		107		30-150	5		30	A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02,07 Batch: WG638908-2 WG638908-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	114		109		30-150	A
Decachlorobiphenyl	114		99		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		78		30-150	B
Decachlorobiphenyl	98		104		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01,07 Batch: WG639096-2 WG639096-3									
MCPP	113		121		30-150	7		30	A
MCPA	208	Q	250	Q	30-150	18		30	A
Dalapon	83		115		30-150	32	Q	30	A
Dicamba	90		93		30-150	3		30	A
Dichloroprop	112		115		30-150	3		30	A
2,4-D	110		116		30-150	5		30	A
2,4-DB	120		128		30-150	6		30	A
2,4,5-T	91		92		30-150	1		30	A
2,4,5-TP (Silvex)	88		91		30-150	3		30	A
Dinoseb	3	Q	7	Q	30-150	83	Q	30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	90		91		30-150	A
DCAA	62		49		30-150	B

METALS

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-01

Date Collected: 09/18/13 16:30

Client ID: TP-4-13 (0-3')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	8700		mg/kg	8.7	1.7	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.4	0.70	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Arsenic, Total	7.0		mg/kg	0.87	0.17	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Barium, Total	140		mg/kg	0.87	0.26	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Beryllium, Total	0.44		mg/kg	0.44	0.09	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Cadmium, Total	0.96		mg/kg	0.87	0.06	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Calcium, Total	40000		mg/kg	8.7	2.6	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Chromium, Total	20		mg/kg	0.87	0.17	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Cobalt, Total	6.0		mg/kg	1.7	0.44	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Copper, Total	32		mg/kg	0.87	0.17	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Iron, Total	16000		mg/kg	4.4	1.7	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Lead, Total	920		mg/kg	4.4	0.17	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Magnesium, Total	13000		mg/kg	8.7	0.87	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Manganese, Total	340		mg/kg	0.87	0.17	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Mercury, Total	1.3		mg/kg	0.09	0.02	1	09/27/13 09:10	09/27/13 14:23	EPA 7471B	1,7471B	MC
Nickel, Total	12		mg/kg	2.2	0.35	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Potassium, Total	950		mg/kg	220	35.	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.7	0.26	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.87	0.17	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Sodium, Total	88	J	mg/kg	170	26.	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.7	0.35	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Vanadium, Total	19		mg/kg	0.87	0.09	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT
Zinc, Total	210		mg/kg	4.4	0.61	2	09/26/13 13:10	09/27/13 17:56	EPA 3050B	1,6010C	TT



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-02

Date Collected: 09/18/13 11:50

Client ID: TP-5-13 (0-3')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	10000		mg/kg	8.9	1.8	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.4	0.71	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Arsenic, Total	3.9		mg/kg	0.89	0.18	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Barium, Total	100		mg/kg	0.89	0.27	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Beryllium, Total	0.50		mg/kg	0.44	0.09	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Cadmium, Total	0.90		mg/kg	0.89	0.06	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Calcium, Total	9000		mg/kg	8.9	2.7	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Chromium, Total	15		mg/kg	0.89	0.18	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Cobalt, Total	6.7		mg/kg	1.8	0.44	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Copper, Total	45		mg/kg	0.89	0.18	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Iron, Total	17000		mg/kg	4.4	1.8	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Lead, Total	130		mg/kg	4.4	0.18	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Magnesium, Total	4800		mg/kg	8.9	0.89	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Manganese, Total	520		mg/kg	0.89	0.18	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Mercury, Total	1.1		mg/kg	0.08	0.02	1	09/27/13 09:10	09/27/13 14:25	EPA 7471B	1,7471B	MC
Nickel, Total	14		mg/kg	2.2	0.36	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Potassium, Total	960		mg/kg	220	36.	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.8	0.27	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.89	0.18	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Sodium, Total	140	J	mg/kg	180	27.	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.8	0.36	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Vanadium, Total	21		mg/kg	0.89	0.09	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT
Zinc, Total	140		mg/kg	4.4	0.62	2	09/26/13 13:10	09/27/13 18:12	EPA 3050B	1,6010C	TT



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-04

Date Collected: 09/19/13 08:40

Client ID: TP-7-13 (0-3')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.0		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:31	EPA 3050B	1,6010C	TT
Barium, Total	110		mg/kg	0.43	0.13	1	09/26/13 13:10	09/27/13 19:31	EPA 3050B	1,6010C	TT
Cadmium, Total	0.83		mg/kg	0.43	0.03	1	09/26/13 13:10	09/27/13 19:31	EPA 3050B	1,6010C	TT
Copper, Total	20		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:31	EPA 3050B	1,6010C	TT
Lead, Total	270		mg/kg	2.2	0.09	1	09/26/13 13:10	09/27/13 19:31	EPA 3050B	1,6010C	TT
Mercury, Total	0.70		mg/kg	0.09	0.02	1	09/27/13 09:10	09/27/13 14:26	EPA 7471B	1,7471B	MC
Silver, Total	ND		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:31	EPA 3050B	1,6010C	TT
Zinc, Total	99		mg/kg	2.2	0.30	1	09/26/13 13:10	09/30/13 12:44	EPA 3050B	1,6010C	TT



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-07

Date Collected: 09/19/13 14:15

Client ID: TP-22-13 (6-8')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	8000		mg/kg	9.1	1.8	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.6	0.73	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Arsenic, Total	3.5		mg/kg	0.91	0.18	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Barium, Total	72		mg/kg	0.91	0.27	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Beryllium, Total	0.36	J	mg/kg	0.46	0.09	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Cadmium, Total	0.72	J	mg/kg	0.91	0.06	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Calcium, Total	67000		mg/kg	9.1	2.7	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Chromium, Total	13		mg/kg	0.91	0.18	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Cobalt, Total	6.3		mg/kg	1.8	0.46	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Copper, Total	19		mg/kg	0.91	0.18	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Iron, Total	16000		mg/kg	4.6	1.8	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Lead, Total	48		mg/kg	4.6	0.18	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Magnesium, Total	21000		mg/kg	9.1	0.91	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Manganese, Total	390		mg/kg	0.91	0.18	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Mercury, Total	0.08		mg/kg	0.08	0.02	1	09/27/13 09:10	09/27/13 14:28	EPA 7471B	1,7471B	MC
Nickel, Total	14		mg/kg	2.3	0.36	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Potassium, Total	1100		mg/kg	230	36.	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.8	0.27	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.91	0.18	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Sodium, Total	120	J	mg/kg	180	27.	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.8	0.36	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Vanadium, Total	18		mg/kg	0.91	0.09	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT
Zinc, Total	94		mg/kg	4.6	0.64	2	09/26/13 13:10	09/27/13 18:16	EPA 3050B	1,6010C	TT



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-08

Date Collected: 09/19/13 15:30

Client ID: TP-23-13 (0.5-3')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	2.8		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:36	EPA 3050B	1,6010C	TT
Barium, Total	78		mg/kg	0.43	0.13	1	09/26/13 13:10	09/27/13 19:36	EPA 3050B	1,6010C	TT
Cadmium, Total	0.63		mg/kg	0.43	0.03	1	09/26/13 13:10	09/27/13 19:36	EPA 3050B	1,6010C	TT
Copper, Total	12		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:36	EPA 3050B	1,6010C	TT
Lead, Total	17		mg/kg	2.2	0.09	1	09/26/13 13:10	09/27/13 19:36	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.09	0.02	1	10/01/13 08:33	10/01/13 11:28	EPA 7471B	1,7471B	MC
Silver, Total	ND		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:36	EPA 3050B	1,6010C	TT
Zinc, Total	71		mg/kg	2.2	0.30	1	09/26/13 13:10	09/30/13 12:48	EPA 3050B	1,6010C	TT



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-09

Date Collected: 09/19/13 17:00

Client ID: TP-24-13 (0.5-4')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.4		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:40	EPA 3050B	1,6010C	TT
Barium, Total	72		mg/kg	0.43	0.13	1	09/26/13 13:10	09/27/13 19:40	EPA 3050B	1,6010C	TT
Cadmium, Total	0.60		mg/kg	0.43	0.03	1	09/26/13 13:10	09/27/13 19:40	EPA 3050B	1,6010C	TT
Copper, Total	18		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:40	EPA 3050B	1,6010C	TT
Lead, Total	110		mg/kg	2.2	0.09	1	09/26/13 13:10	09/27/13 19:40	EPA 3050B	1,6010C	TT
Mercury, Total	3.7		mg/kg	0.09	0.02	1	10/01/13 08:33	10/01/13 11:39	EPA 7471B	1,7471B	MC
Silver, Total	ND		mg/kg	0.43	0.09	1	09/26/13 13:10	09/27/13 19:40	EPA 3050B	1,6010C	TT
Zinc, Total	84		mg/kg	2.2	0.30	1	09/26/13 13:10	09/30/13 12:52	EPA 3050B	1,6010C	TT



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-10

Date Collected: 09/20/13 11:30

Client ID: TP-25-13 (0.5-4')

Date Received: 09/20/13

Sample Location: 295 MARYLAND ST

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	3.4		mg/kg	0.44	0.09	1	09/26/13 13:10	09/27/13 19:44	EPA 3050B	1,6010C	TT
Barium, Total	69		mg/kg	0.44	0.13	1	09/26/13 13:10	09/27/13 19:44	EPA 3050B	1,6010C	TT
Cadmium, Total	1.1		mg/kg	0.44	0.03	1	09/26/13 13:10	09/27/13 19:44	EPA 3050B	1,6010C	TT
Copper, Total	37		mg/kg	0.44	0.09	1	09/26/13 13:10	09/27/13 19:44	EPA 3050B	1,6010C	TT
Lead, Total	120		mg/kg	2.2	0.09	1	09/26/13 13:10	09/27/13 19:44	EPA 3050B	1,6010C	TT
Mercury, Total	4.0		mg/kg	0.17	0.04	2	10/01/13 08:33	10/01/13 12:25	EPA 7471B	1,7471B	MC
Silver, Total	ND		mg/kg	0.44	0.09	1	09/26/13 13:10	09/27/13 19:44	EPA 3050B	1,6010C	TT
Zinc, Total	87		mg/kg	2.2	0.30	1	09/26/13 13:10	09/30/13 12:56	EPA 3050B	1,6010C	TT



Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02,04,07 Batch: WG639236-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	09/27/13 09:10	09/27/13 13:53	1,7471B	MC

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-02,04,07-10 Batch: WG639248-1										
Aluminum, Total	ND		mg/kg	4.0	0.80	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Antimony, Total	ND		mg/kg	2.0	0.32	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Arsenic, Total	ND		mg/kg	0.40	0.08	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Barium, Total	ND		mg/kg	0.40	0.12	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Beryllium, Total	ND		mg/kg	0.20	0.04	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.40	0.03	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Calcium, Total	ND		mg/kg	4.0	1.2	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Chromium, Total	ND		mg/kg	0.40	0.08	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Cobalt, Total	ND		mg/kg	0.80	0.20	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Copper, Total	ND		mg/kg	0.40	0.08	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Iron, Total	ND		mg/kg	2.0	0.80	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Lead, Total	ND		mg/kg	2.0	0.08	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Magnesium, Total	ND		mg/kg	4.0	0.40	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Manganese, Total	ND		mg/kg	0.40	0.08	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Nickel, Total	ND		mg/kg	1.0	0.16	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Potassium, Total	ND		mg/kg	100	16.	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Selenium, Total	ND		mg/kg	0.80	0.12	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Silver, Total	ND		mg/kg	0.40	0.08	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Sodium, Total	ND		mg/kg	80	12.	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Thallium, Total	ND		mg/kg	0.80	0.16	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Vanadium, Total	ND		mg/kg	0.40	0.04	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT
Zinc, Total	ND		mg/kg	2.0	0.28	1	09/26/13 13:10	09/27/13 17:23	1,6010C	TT

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 08-10 Batch: WG640061-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	10/01/13 08:33	10/01/13 11:17	1,7471B	MC

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07 Batch: WG639236-2 SRM Lot Number: 0518-10-02								
Mercury, Total	124		-		67-133	-		

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07-10 Batch: WG639248-2 SRM Lot Number: 0518-10-02					
Aluminum, Total	82	-	29-171	-	
Antimony, Total	122	-	4-196	-	
Arsenic, Total	104	-	81-119	-	
Barium, Total	96	-	83-118	-	
Beryllium, Total	104	-	83-117	-	
Cadmium, Total	94	-	82-117	-	
Calcium, Total	90	-	83-117	-	
Chromium, Total	97	-	80-119	-	
Cobalt, Total	99	-	83-117	-	
Copper, Total	101	-	83-117	-	
Iron, Total	94	-	51-150	-	
Lead, Total	94	-	80-120	-	
Magnesium, Total	83	-	74-126	-	
Manganese, Total	100	-	83-117	-	
Nickel, Total	99	-	82-117	-	
Potassium, Total	99	-	74-126	-	
Selenium, Total	106	-	80-120	-	
Silver, Total	104	-	66-134	-	
Sodium, Total	106	-	74-127	-	
Thallium, Total	96	-	79-120	-	
Vanadium, Total	98	-	79-121	-	

Lab Control Sample Analysis Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07-10 Batch: WG639248-2 SRM Lot Number: 0518-10-02					
Zinc, Total	97	-	82-119	-	
Total Metals - Westborough Lab Associated sample(s): 08-10 Batch: WG640061-2 SRM Lot Number: 0518-10-02					
Mercury, Total	121	-	67-133	-	

Matrix Spike Analysis Batch Quality Control

Project Name: 295 MARYLAND ST

Lab Number: L1318716

Project Number: 0222-001-101

Report Date: 10/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07 QC Batch ID: WG639236-4 QC Sample: L1317777-02 Client ID: MS Sample												
Mercury, Total	ND	0.159	0.24	151	Q	-	-		70-130	-		35

Matrix Spike Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07-10 QC Batch ID: WG639248-4 QC Sample: L1318716-01 Client ID: TP-4-13 (0-3')									
Aluminum, Total	8700	181	9100	221	Q	-	75-125	-	35
Antimony, Total	ND	45.2	39	86	-	-	75-125	-	35
Arsenic, Total	7.0	10.8	16	83	-	-	75-125	-	35
Barium, Total	140	181	280	78	-	-	75-125	-	35
Beryllium, Total	0.44	4.52	4.6	102	-	-	75-125	-	35
Cadmium, Total	0.96	4.61	4.9	86	-	-	75-125	-	35
Calcium, Total	40000	903	52000	1330	Q	-	75-125	-	35
Chromium, Total	20.	18.1	35	83	-	-	75-125	-	35
Cobalt, Total	6.0	45.2	44	84	-	-	75-125	-	35
Copper, Total	32.	22.6	51	84	-	-	75-125	-	35
Iron, Total	16000	90.3	16000	0	Q	-	75-125	-	35
Lead, Total	920	46.1	880	0	Q	-	75-125	-	35
Magnesium, Total	13000	903	15000	221	Q	-	75-125	-	35
Manganese, Total	340	45.2	390	111	-	-	75-125	-	35
Nickel, Total	12.	45.2	50	84	-	-	75-125	-	35
Potassium, Total	950	903	2000	116	-	-	75-125	-	35
Selenium, Total	ND	10.8	10	92	-	-	75-125	-	35
Silver, Total	ND	27.1	26	96	-	-	75-125	-	35
Sodium, Total	88.J	903	1000	111	-	-	75-125	-	35
Thallium, Total	ND	10.8	6.8	63	Q	-	75-125	-	35
Vanadium, Total	19.	45.2	60	91	-	-	75-125	-	35

Matrix Spike Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07-10 QC Batch ID: WG639248-4 QC Sample: L1318716-01 Client ID: TP-4-13 (0-3')									
Zinc, Total	210	45.2	200	0	Q	-	75-125	-	35
Total Metals - Westborough Lab Associated sample(s): 08-10 QC Batch ID: WG640061-4 QC Sample: L1318716-08 Client ID: TP-23-13 (0.5-3')									
Mercury, Total	ND	0.185	0.22	119	-	-	70-130	-	35

Lab Duplicate Analysis
Batch Quality Control

Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07 QC Batch ID: WG639236-3 QC Sample: L1317777-02 Client ID: DUP Sample						
Mercury, Total	ND	0.02J	mg/kg	NC		35

Lab Duplicate Analysis Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07-10 QC Batch ID: WG639248-3 QC Sample: L1318716-01 Client ID: TP-4-13 (0-3')					
Aluminum, Total	8700	8400	mg/kg	4	35
Antimony, Total	ND	ND	mg/kg	NC	35
Arsenic, Total	7.0	7.8	mg/kg	11	35
Barium, Total	140	130	mg/kg	7	35
Beryllium, Total	0.44	0.43J	mg/kg	NC	35
Cadmium, Total	0.96	1.0	mg/kg	4	35
Calcium, Total	40000	40000	mg/kg	0	35
Chromium, Total	20.	22	mg/kg	10	35
Cobalt, Total	6.0	6.2	mg/kg	3	35
Copper, Total	32.	38	mg/kg	17	35
Iron, Total	16000	16000	mg/kg	0	35
Lead, Total	920	930	mg/kg	1	35
Magnesium, Total	13000	14000	mg/kg	7	35
Manganese, Total	340	370	mg/kg	8	35
Nickel, Total	12.	13	mg/kg	8	35
Potassium, Total	950	970	mg/kg	2	35
Selenium, Total	ND	ND	mg/kg	NC	35
Silver, Total	ND	ND	mg/kg	NC	35
Sodium, Total	88.J	91J	mg/kg	NC	35

Lab Duplicate Analysis

Batch Quality Control

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-02,04,07-10 QC Batch ID: WG639248-3 QC Sample: L1318716-01 Client ID: TP-4-13 (0-3')					
Thallium, Total	ND	ND	mg/kg	NC	35
Vanadium, Total	19.	18	mg/kg	5	35
Zinc, Total	210	190	mg/kg	10	35
Total Metals - Westborough Lab Associated sample(s): 08-10 QC Batch ID: WG640061-3 QC Sample: L1318716-08 Client ID: TP-23-13 (0.5-3')					
Mercury, Total	ND	ND	mg/kg	NC	35

INORGANICS & MISCELLANEOUS

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-01

Client ID: TP-4-13 (0-3')

Sample Location: 295 MARYLAND ST

Matrix: Soil

Date Collected: 09/18/13 16:30

Date Received: 09/20/13

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.1		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-02

Client ID: TP-5-13 (0-3')

Sample Location: 295 MARYLAND ST

Matrix: Soil

Date Collected: 09/18/13 11:50

Date Received: 09/20/13

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.8		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13**SAMPLE RESULTS****Lab ID:** L1318716-03**Client ID:** TP-6-13 (7-9')**Sample Location:** 295 MARYLAND ST**Matrix:** Soil**Date Collected:** 09/18/13 15:30**Date Received:** 09/20/13**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.2		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13**SAMPLE RESULTS****Lab ID:** L1318716-04**Client ID:** TP-7-13 (0-3')**Sample Location:** 295 MARYLAND ST**Matrix:** Soil**Date Collected:** 09/19/13 08:40**Date Received:** 09/20/13**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.6		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13**SAMPLE RESULTS****Lab ID:** L1318716-05**Client ID:** TP-9-13 (9-12')**Sample Location:** 295 MARYLAND ST**Matrix:** Soil**Date Collected:** 09/19/13 09:30**Date Received:** 09/20/13**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.3		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13**SAMPLE RESULTS****Lab ID:** L1318716-06**Client ID:** TP-13-13 (8-9')**Sample Location:** 295 MARYLAND ST**Matrix:** Soil**Date Collected:** 09/19/13 16:00**Date Received:** 09/20/13**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.6		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-07
Client ID: TP-22-13 (6-8')
Sample Location: 295 MARYLAND ST
Matrix: Soil

Date Collected: 09/19/13 14:15
Date Received: 09/20/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.5		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-08

Client ID: TP-23-13 (0.5-3')

Sample Location: 295 MARYLAND ST

Matrix: Soil

Date Collected: 09/19/13 15:30

Date Received: 09/20/13

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.3		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13**SAMPLE RESULTS****Lab ID:** L1318716-09**Client ID:** TP-24-13 (0.5-4')**Sample Location:** 295 MARYLAND ST**Matrix:** Soil**Date Collected:** 09/19/13 17:00**Date Received:** 09/20/13**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

SAMPLE RESULTS

Lab ID: L1318716-10

Client ID: TP-25-13 (0.5-4')

Sample Location: 295 MARYLAND ST

Matrix: Soil

Date Collected: 09/20/13 11:30

Date Received: 09/20/13

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.3		%	0.100	NA	1	-	09/24/13 21:45	30,2540G	RT



Lab Duplicate Analysis
Batch Quality Control**Project Name:** 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG638744-1 QC Sample: L1318716-01 Client ID: TP-4-13 (0-3')						
Solids, Total	86.1	85.1	%	1		20

Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318716-01A	Vial Large Septa unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1318716-01B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HERB-8151(14),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1318716-01C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HERB-8151(14),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1318716-02A	Vial Large Septa unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1318716-02B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),NYTCL-8081(14),V-TI(180),FE-TI(180),HERB-8151(14),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)

*Values in parentheses indicate holding time in days



Project Name: 295 MARYLAND ST

Project Number: 0222-001-101

Lab Number: L1318716

Report Date: 10/03/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318716-02C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HERB-8151(14),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1318716-03A	Vial Large Septa unpreserved	A	N/A	4.3	Y	Absent	TCLP-EXT-ZHE(14),NYTCL-8260(14)
L1318716-03B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),TS(7)
L1318716-03C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),TS(7)
L1318716-03X	Vial unpreserved split	A	N/A	4.3	Y	Absent	TCLP-VOA(14)
L1318716-03Y	Vial unpreserved split	A	N/A	4.3	Y	Absent	TCLP-VOA(14)
L1318716-04A	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	TS(7)
L1318716-04B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),ZN-Ti(180),HG-T(28),NYTCL-8082(14),CD-Ti(180)
L1318716-04C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),ZN-Ti(180),HG-T(28),NYTCL-8082(14),CD-Ti(180)
L1318716-05A	Vial Large Septa unpreserved	A	N/A	4.3	Y	Absent	TCLP-EXT-ZHE(14),NYTCL-8260(14)
L1318716-05B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),TS(7)
L1318716-05C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),TS(7)
L1318716-05X	Vial unpreserved split	A	N/A	4.3	Y	Absent	TCLP-VOA(14)
L1318716-05Y	Vial unpreserved split	A	N/A	4.3	Y	Absent	TCLP-VOA(14)
L1318716-06A	Vial Large Septa unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)
L1318716-06B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),TS(7)
L1318716-06C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),TS(7)
L1318716-07A	Vial Large Septa unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days



Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318716-07B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HERB-8151(14),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1318716-07C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	BE-Ti(180),NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),AL-Ti(180),CR-Ti(180),NI-Ti(180),TL-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),SB-Ti(180),SE-Ti(180),ZN-Ti(180),CO-Ti(180),NYTCL-8081(14),V-Ti(180),FE-Ti(180),HERB-8151(14),HG-T(28),MG-Ti(180),MN-Ti(180),NYTCL-8082(14),CA-Ti(180),CD-Ti(180),K-Ti(180),NA-Ti(180)
L1318716-08A	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	TS(7)
L1318716-08B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),ZN-Ti(180),HG-T(28),NYTCL-8082(14),CD-Ti(180)
L1318716-08C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),ZN-Ti(180),HG-T(28),NYTCL-8082(14),CD-Ti(180)
L1318716-09A	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	TS(7)
L1318716-09B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),ZN-Ti(180),HG-T(28),NYTCL-8082(14),CD-Ti(180)
L1318716-09C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-Ti(180),BA-Ti(180),AG-Ti(180),TS(7),CU-Ti(180),PB-Ti(180),ZN-Ti(180),HG-T(28),NYTCL-8082(14),CD-Ti(180)
L1318716-10A	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	TS(7)

*Values in parentheses indicate holding time in days



Project Name: 295 MARYLAND ST**Project Number:** 0222-001-101**Lab Number:** L1318716**Report Date:** 10/03/13**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1318716-10B	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),TS(7),CU-TI(180),PB-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1318716-10C	Amber 250ml unpreserved	A	N/A	4.3	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),TS(7),CU-TI(180),PB-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)

Container Comments

L1318716-01B

L1318716-07B

L1318716-07C

*Values in parentheses indicate holding time in days

Project Name: 295 MARYLAND ST
Project Number: 0222-001-101

Lab Number: L1318716
Report Date: 10/03/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



Project Name: 295 MARYLAND ST
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Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



Project Name: 295 MARYLAND ST
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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised October 1, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP (Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. **NELAP Accredited.**

Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. *Organic Parameters:* ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. *Organic Parameters:* (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. *Microbiology Parameters:* SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

Non-Potable Water (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. *Microbiology Parameters:* (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. *Organic Parameters:* 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. *Organic Parameters:* SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. *Organic Parameters:* SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.

Drinking Water (Organic Parameters: **EPA 524.2:** Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

Non-Potable Water (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene. **EPA 8015C(M):** TPH.)

Solid & Chemical Materials (Organic Parameters: **EPA 8260C:** 1,3,5-Trichlorobenzene.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. *Organic Parameters:* EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. *Organic Parameters:* SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

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Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D,

9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO₃-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH₃-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO₃-F, 4500-NO₂-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500CI-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO₃-F, 353.2, 4500P-E, 4500SO₄-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311, 1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO₃-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A, 3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500CI-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500S-D, 4500SO₃-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH₃-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.*

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO₃-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500CI-E, 4500F-B, 4500F-C,

4500NH₃-H, 4500NO₂-B, 4500NO₃-F, 4500 SO₃-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO₃-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.



WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

CHAIN OF CUSTODY

PAGE _____ OF _____

Serial No: 10031311-13

Date Rec'd in Lab: 9/21/13

ALPHA Job #: L1318716

Project Information

Project Name: 295 Maryland St

Project Location: " "

Project #: 0222-001-101

Project Manager: Ray Lafort

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 10/1/13 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEX ☐ Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program Criteria

Client Information

Client: Benchmark Env.

Address: 2558 Hamburg Turnpike
Buffalo, NY 14218

Phone: 716-225-3314

Fax:

Email: bgreene@turnkeyllc.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

* COC PAHs = Benzo(a)anthracene, Benzo(b)pyrene, Benzo(k)fluoranthene, Benzo(e)fluoranthene, Chrysene, Dibenz(a,h)anthracene, indeno(1,2,3)pyrene

** COC Inorganics = As, Ba, Cd, Cu, Pb, Hg, Ag, Zn

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
18716-	1 TP-4-13 (0-3')	9-18-13	1630	B	Bmg
	2 TP-5-13 (0-3')	1	1150	S	
	3 TP-6-13 (7-9')	9-18-13	1530	S	
	4 TP-7-13 (0-3')	9-19-13	0840	S	
	5 TP-9-13 (9-12')		0930	S	
	6 TP-13-13 (8-9')		1600	S	
	7 TP-22-13 (6-8')		1415	S	
	8 TP-23-13 (0.5-3')		1530	S	
	9 TP-24-13 (0.5-4')	9-19-13	1700	S	
	10 TP-25-13 (0.5-4')	9-20-13	1130	S	

ANALYSIS										TOTAL # BOTTLES
TEL VOC (P260)	TEL SVOC (P270)	TAL Metals	Pesticides + Herbicides	PCBs (P282)	TELP VOCs	COC PAHs *	COC Inorganics **			
X	X	X	X	X						3
X	X	X	X	X						3
X	X				X					3
			X		X	X				3
X	X			X						3
X	X	X	X	X						3
			X		X	X				3
			X		X	X				3
			X		X	X				3

SAMPLE HANDLING

Filtration _____
☐ Done
☐ Not needed
☐ Lab to do Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

Container Type

Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

Brock Greene
James J. Ruckus

9-20-13/1530
9-20-13/1800

James J. Ruckus
JR

9-20-13/1830
9/21/13 10:07

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

APPENDIX F

LAND USE EVALUATION

APPENDIX F

LAND USE EVALUATION

NYSDEC's Part 375 regulations require that the reasonableness of the anticipated future land be factored into the evaluation of remedial alternatives. The regulations identify 16 criteria that must be considered. These criteria and the resultant outcome for the 295 Maryland Street Site are presented below.

1. *Current use and historical and/or recent development patterns:* The 295 Maryland Street Site was a former manufacturing facility, located in a historically residential area in the City of Buffalo, New York. The Site is currently undeveloped and vacant. **Accordingly, residential site redevelopment would be consistent with the development patterns in the area.**
2. *Applicable zoning laws and maps:* The Site is located in an area of the City zoned residential. **Reuse of the Site in a residential capacity is therefore consistent with current zoning.**
3. *Brownfield opportunity areas as designated set forth in GML 970-r:* The Brownfield Opportunity Area (BOA) Program provides municipalities and community based organizations with assistance to complete revitalization plans and implementation strategies for areas or communities affected by the presence of brownfield sites, and site assessments for strategic sites. **The subject property does not lie within a BOA.**
4. *Applicable comprehensive community master plans, local waterfront revitalization plans as provided for in EL article 42, or any other applicable land use plan formally adopted by a municipality:* The project site is not in a municipality or waterfront revitalization plan. However, it is important that affordable housing be provided, which is precisely what the project intends. Apartments on the west side of Buffalo will provide the requisite housing for approximately 70-living units. **Site redevelopment is consistent with the general principles of revitalizing Buffalo for the future.**
5. *Proximity to real property currently used for residential use, and to urban, commercial, industrial, agricultural, and recreational areas:* The surrounding land is residential. Nearby and adjacent property is residential. **Reuse of the Site in a residential capacity is consistent with the surrounding property.**

APPENDIX F

LAND USE EVALUATION

6. *Any written and oral comments submitted by members of the public on the proposed use as part of the activities performed pursuant to the citizen participation plan:* **No comments have been received from the public relevant to Site use concerns.**
7. *Environmental justice concerns, which include the extent to which the proposed use may reasonably be expected to cause or increase a disproportionate burden on the community in which the site is located, including low-income minority communities, or to result in a disproportionate concentration of commercial or industrial uses in what has historically been a mixed use or residential community:* **Nearby and adjacent property is actively used in a residential capacity. Reuse of the site in a residential capacity does not pose environmental justice issues.**
8. *Federal or State land use designations:* The property is designated Urban Land (U2) by the Soil Conservation Service. Urban land typically contains ubiquitous contaminants. **Reuse in a restricted capacity (residential) is typical in areas where background conditions preclude achieving unrestricted use soil cleanup objectives.**
9. *Population growth patterns and projections:* The City of Buffalo, NY, encompassing 40 square miles, has an estimated population of 261,310 (2010 U.S. Census Bureau), a decrease of 14,749 from the 2006 U.S. Census. A declining population indicates a surplus housing market. **Reuse of the Site as apartments for multi-family opportunities will be entirely consistent with the anticipated needs for this community.**
10. *Accessibility to existing infrastructure:* Access to the Site is from Maryland Street and West Avenue. Utilities (sewer, water, electric) are present along all of these neighboring streets. **Existing infrastructure supports reuse in a residential capacity.**
11. *Proximity of the site to important cultural resources, including federal or State historic or heritage sites or Native American religious sites:* **The Site is in an archeological sensitive area, and there are several cultural resources within ½ mile of the Site including the:**
 - Allentown Historic District
 - West Village Historic District
 - Delaware Avenue Methodist Episcopal Church
 - William Dorsheimer House
 - Birge-Horton House

APPENDIX F

LAND USE EVALUATION

- Theodore Roosevelt Inaugural National Historic Site (from NYSDEC Environmental Resource Mapper website).
12. *Natural resources, including proximity of the site to important federal, State, or local natural resources, including waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species:* The Erie County Internet Mapping System shows that State or Federal wetlands do not exist on or within 1/2-mile of the subject property. The Niagara River is located approximately one mile west of the Site. **The absence of significant ecological resources on or adjacent to the Site indicates that reuse of the site and cleanup to restricted use conditions will not pose an ecological threat.**
13. *Potential vulnerability of groundwater to contamination that might emanate from the site, including proximity to wellhead protection and groundwater recharge areas and other areas identified by the Department and the State's comprehensive groundwater remediation and protection program established set forth in ECL article 15 Title 31:* Groundwater at the Site is assigned Class "GA" by 6NYCRR Part 701.15. Four groundwater monitoring wells exist on the Site. Groundwater data obtained during the site characterization indicates residual impacts from volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). There are no groundwater supply wells present on the Site. Regionally, groundwater in the area has not been developed for industrial, agriculture, or public supply purposes. Potable water service is provided off-site and on-site by the local municipal water authority. **The absence of potable wells, wellhead protection, and groundwater recharge areas indicates that cleanup to restricted use conditions will not pose a drinking water threat.**
14. *Proximity to flood plains:* The Erie County Internet Mapping System indicates that the Niagara River, located approximately one mile west of the Site, is a FEMA-designated and 500-year flood zone. No flood zones are present on or within 1/2-mile of the property; there is no risk of significant soil erosion due to flooding. **As such, cleanup to restricted use SCOs does not pose a threat to surface water.**
15. *Geography and geology:* The Site is located within the Erie-Ontario lake plain physiographic province, which is typified by little topographic relief and gentle slope toward the Niagara River/Lake Erie, except in the immediate vicinity of major drainage ways. Surface soils within the City are characterized as urban land with level to gently sloping land in which 80 percent or more of the soil surface is covered by asphalt, concrete, buildings, or other impervious structures typical of an urban environment. **Geography and geology are consistent with residential re-use.**

APPENDIX F LAND USE EVALUATION

16. *Current institutional controls applicable to the site:* **No institutional controls are currently present that would affect redevelopment options.**

Based on the above analysis, reuse of the Site in a residential capacity is consistent with past and current development and zoning on and around the Site, and does not pose additional environmental or human health risk.

APPENDIX G

SITE HEALTH AND SAFETY PLAN AND COMMUNITY AIR MONITORING PLAN

SITE HEALTH & SAFETY PLAN FOR BROWNFIELD CLEANUP PROGRAM

**295 Maryland Street Site
Buffalo, New York**

July 2011

0222-001-100

Prepared for:

295 MARYLAND, LLC

Prepared By:



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SITE HEALTH & SAFETY PLAN

295 MARYLAND STREET SITE

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ACKNOWLEDGEMENT

Plan Reviewed by (initial):

Corporate Health and Safety Director: _____

Project Manager: _____

Designated Site Safety and Health Officer: _____

Acknowledgement:

I acknowledge that I have reviewed the information contained in this site-specific Health and Safety Plan, and understand the hazards associated with performance of the field activities described herein. I agree to comply with the requirements of this plan.

NAME (PRINT)	SIGNATURE	DATE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

SITE HEALTH & SAFETY PLAN
295 MARYLAND STREET SITE

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SITE HEALTH & SAFETY PLAN
295 MARYLAND STREET SITE

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1.0 INTRODUCTION

1.1 General

In accordance with OSHA requirements contained in 29 CFR 1910.120, this Health and Safety Plan (HASP) describes the specific health and safety practices and procedures to be employed by Benchmark Environmental Engineering & Science, PLLC (Benchmark) employees during Brownfield Cleanup Program (BCP) activities on the 295 Maryland Street Site (Site) located in the City of Buffalo, New York. This HASP presents procedures for Benchmark employees who will be involved with remedial field activities; it does not cover the activities of other contractors, subcontractors, or other individuals on the Site. Non-Benchmark site personnel will be required to develop and enforce their own HASPs as discussed in Section 2.0. Benchmark accepts no responsibility for the health and safety of contractor, subcontractor, or other personnel.

This HASP presents information on known Site health and safety hazards using available historical information, and identifies the equipment, materials and procedures that will be used to eliminate or control these hazards. Environmental monitoring will be performed during the course of field activities to provide real-time data for on-going assessment of potential hazards.

1.2 Background

The Site was historically used in a residential and commercial capacity, with the property at 295 Maryland Street most recently occupied by Lamar Advertising, Inc., a firm specializing in the sale of billboard advertising space and erection of billboard signs. Lamar relocated within the City of Buffalo in December 2000; the associated commercial buildings and facilities on 295 Maryland Street as well as the residences at 121-129 West Avenue have been demolished. Currently, the Site is vacant and undeveloped.

A Phase I Environmental Site Assessment (ESA) was performed for the former Lamar Advertising property in January 2000 prior to facility demolition. A separate Phase I ESA was prepared in 2001 for 121-129 West Avenue on behalf of the Buffalo Niagara Renaissance Corporation. The ESA reports indicated that 121-129 West Avenue was historically used for residential purposes, with 295 Maryland Street historically improved

with an office, commercial building, two multiple bay garages, and a parking area. Several identified prior use activities on 295 Maryland, including vehicle maintenance and the use and storage of paints, adhesives, and other flammables, were cited in the Phase I ESA's as indicators of potential environmental conditions on the property. The Phase I also identified a 550-gallon underground gasoline storage tank (UST) and a 4,000-gallon gasoline UST that were reportedly removed from the Site in 1974 and 1997, respectively. A small UST containing benzene was also reportedly discovered and removed during facility decommissioning.

A Phase II Site Investigation was completed at 295 Maryland Street by Benchmark in November 2001 based on Phase I ESA findings. The Phase II identified surface and subsurface soil/fill materials exceeding NY State soil cleanup guidance values (i.e., as compared to TAGM 4046, the applicable NYSDEC guidance in place at that time) for certain parameters, including arsenic, lead, mercury and several polycyclic aromatic hydrocarbons (PAHs). These same parameters are elevated with respect to more recent Soil Cleanup Objectives (SCOs) for restricted residential use as published in 6NYCRR Part 375.

1.3 Known and Suspected Environmental Conditions

Portions of the 295 Maryland Street Site were formerly used to house automotive repair facilities containing USTs and hydraulic lifts. Surficial and subsurface soil testing identified seven polycyclic aromatic hydrocarbons (PAHs) at levels in excess of the NYSDEC soil cleanup objectives (SCOs) for restricted residential use. The compounds detected in at least one of the samples include: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3)pyrene, and dibenz(a,h)anthracene. In addition, the inorganic compounds detected in excess of the restricted residential SCOs include: arsenic, barium, cadmium, lead and mercury. While not exceeding restricted residential SCOs, low levels of volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs) were detected. In addition, groundwater results show that VOCs were detected in the sample from well MW-2 at concentrations exceeding NYSDEC groundwater quality standards (GWQSS). The VOCs detected include benzene, ethylbenzene, toluene, and xylenes (BTEX), which are characteristic of gasoline contamination.

1.4 Parameters of Interest

Potential parameters of interest at the Site include:

- **Volatile Organic Compounds (VOCs)** – VOCs present in groundwater may include benzene, toluene, ethylbenzene, and xylene (i.e., BTEX). These VOCs are typically associated with storage and handling of petroleum products such as gasoline.
- **Polyaromatic Hydrocarbons (PAHs)** – PAHs present at the Site include derivatives from oils, greases, and fuels associated with the operation of historic automotive repair operations; specifically, PAHs that are byproducts of incomplete combustion and impurities in petroleum products. Although PAHs are commonly found in urban soil environments, they may be present at the Site at concentrations that are elevated compared to typical “background” levels.
- **Inorganic Compounds** – Inorganic compounds potentially present at elevated concentrations in soil/fill due to accidental spillage or misguided disposal may include arsenic, cadmium, chromium, lead, and mercury.

1.5 Overview of BCP Activities

Benchmark personnel will be on-site to observe BCP remedial activities. General field activities to be completed are described below. Detailed BCP activities are more fully described in the Interim Remedial Measures (IRM) Work Plan.

1. **Soil/Fill Excavation:** Benchmark will monitor all soil/fill excavations and related activities to visually inspect soil/fill for evidence of contamination.
2. **Soil/Fill Verification Sampling:** Benchmark will collect subsurface verification samples following excavation and prior to backfilling operations.
3. **Surface Water Management:** During excavation, surface water and/or perched groundwater infiltration may occur. Benchmark will direct the contractor to collect and characterize the surface water for proper disposal.
4. **Subgrade Work:** Significant grading of the Site may be required before implementation of remedial measures.

2.0 ORGANIZATIONAL STRUCTURE

This chapter of the HASP describes the lines of authority, responsibility, and communication as they pertain to health and safety functions at the Site. The purpose of this chapter is to identify the personnel who impact the development and implementation of the HASP and to describe their roles and responsibilities. This chapter also identifies other contractors and subcontractors involved in work operations, and establishes the lines of communications among them for health and safety matters. The organizational structure described in this chapter is consistent with the requirements of 29 CFR 1910.120(b)(2). This section will be reviewed by the Project Manager and updated as necessary to reflect the current organizational structure at the Site.

2.1 Roles and Responsibilities

All Benchmark personnel on the Site must comply with the minimum requirements of this HASP. The specific responsibilities and authority of management, safety and health, and other personnel on this Site are detailed in the following paragraphs.

2.1.1 Corporate Health and Safety Director

The Benchmark Corporate Health and Safety Director is ***Mr. Thomas H. Forbes, P.E.*** The Corporate Health and Safety Director responsible for developing and implementing the Health and Safety program and policies for Benchmark Environmental Engineering & Science, PLLC and consulting with corporate management to ensure adequate resources are available to properly implement these programs and policies. The Corporate Health and Safety Director coordinates Benchmark's Health and Safety training and medical monitoring programs and assists project management and field staff in developing site-specific health and safety plans.

2.1.2 Project Manager

The Project Manager for this site is ***Thomas H. Forbes, P.E.*** The Project Manager has the responsibility and authority to direct all Benchmark work operations at the Site. The Project Manager coordinates safety and health functions with the Site Safety and Health Officer, and bears ultimate responsibility for proper implementation of this HASP. He may

delegate authority to expedite and facilitate any application of the program, including modifications to the overall project approach as necessary to circumvent unsafe work conditions. Specific duties of the Project Manager include:

- Preparing and coordinating the site work plan.
- Providing Benchmark workers with work assignments and overseeing their performance.
- Coordinating health and safety efforts with the Site Safety and Health Officer (SSHO).
- Reviewing the emergency response coordination plan to assure its effectiveness.
- Serving as the primary liaison with site contractors and the property owner.

2.1.3 Site Safety and Health Officer

The Site Safety and Health Officer (SSHO) for this site is ***Mr. Richard L. Dubisz***. The qualified alternate SSHO is ***Mr. Thomas Behrendt***. The SSHO reports to the Project Manager. The SSHO is on-site or readily accessible to the site during all work operations and has the authority to halt site work if unsafe conditions are detected. The specific responsibilities of the SSHO are:

- Managing the safety and health functions for Benchmark personnel on the Site.
- Serving as the point of contact for safety and health matters.
- Ensuring that Benchmark field personnel working on the Site have received proper training (per 29 CFR Part 1910.120(e)), that they have obtained medical clearance to wear respiratory protection (per 29 CFR Part 1910.134), and that they are properly trained in the selection, use and maintenance of personal protective equipment, including qualitative respirator fit testing.
- Performing or overseeing site monitoring as required by the HASP.
- Assisting in the preparation and review of the HASP
- Maintaining site-specific safety and health records as described in this HASP
- Coordinating with the Project Manager, Site Workers and Contractor's SSHO as necessary for safety and health efforts.

2.1.4 Site Workers

Site workers are responsible for: complying with this HASP or a more stringent

HASP, if appropriate (i.e., Contractor and Subcontractor's HASP); using proper PPE; reporting unsafe acts and conditions to the SSHO; and following the safety and health instructions of the Project Manager and SSHO.

2.1.5 Other Site Personnel

Other site personnel who will have health and safety responsibilities will include the Remedial Contractor, who will be responsible for developing, implementing, and enforcing a Health and Safety Plan equally stringent or more stringent than Benchmark's HASP. Benchmark assumes no responsibility for the health and safety of anyone outside its direct employ. Each Contractor's HASP shall cover all non-Benchmark site personnel. Each Contractor shall assign a SSHO who will coordinate with Benchmark's SSHO as necessary to ensure effective lines of communication and consistency between contingency plans.

In addition to Benchmark and Contractor personnel, other individuals who may have responsibilities in the work zone include subcontractors and governmental agencies performing site inspection work (i.e., the New York State Department of Environmental Conservation). The Contractor shall be responsible for ensuring that these individuals have received OSHA-required training (29 CFR 1910.120(e)), including initial, refresher, and site-specific training, and shall be responsible for the safety and health of these individuals while they are on-site.

3.0 HAZARD EVALUATION

Due to the presence of certain contaminants at the Site, the possibility exists that workers will be exposed to hazardous substances during field activities. The principal points of exposure would be through direct contact with and incidental ingestion of soil/fill, and through the inhalation of contaminated particles or vapors, during soil/fill excavation activities and monitoring well installation. In addition, the use of heavy construction equipment (e.g., excavator) will also present conditions for potential physical injury to workers. Further, since work will be performed outdoors, the potential exists for heat/cold stress to impact workers, especially those wearing protective equipment and clothing. Adherence to the medical evaluations, worker training relative to chemical hazards, safe work practices, proper personal protection, environmental monitoring, establishment work zones and site control, appropriate decontamination procedures and contingency planning outlined herein will reduce the potential for chemical exposures and physical injuries.

3.1 Chemical Hazards

As discussed in Section 1.3, historic activities related to the former steel-manufacturing operations and facilities have resulted in elevated concentrations of VOCs, SVOCs, PCBs, and inorganic compounds in Site soils and groundwater. Table 1 identifies maximum concentrations of COPCs detected throughout the Site. Table 2 lists exposure limits for airborne concentrations of the COPCs identified in Section 1.4 of this HASP. Brief descriptions of the toxicology of the prevalent constituents of potential concern and related health and safety guidance and criteria are provided below.

- **Arsenic (CAS #7440-38-2)** is a naturally occurring element and is usually found combined with one or more elements, such as oxygen or sulfur. Inhalation is a more important exposure route than ingestion. First phase exposure symptoms include nausea, vomiting, diarrhea and pain in the stomach. Prolonged contact is corrosive to the skin and mucus membranes. Arsenic is considered a Group A human carcinogen by the USEPA. Exposure via inhalation is associated with an increased risk of lung cancer. Exposure via the oral route is associated with an increased risk of skin cancer.
- **Barium (CAS # 7440-39-3)** is a silver white metal, produced by the reduction of barium oxide. Local effects and symptoms of exposure to barium compounds, such as the hydroxide or carbonate, may include irritation of the eyes, throat, nose and skin. Systemic effects from ingestion include increased muscle contractility,

reduction of heart rate/potential arrest, intestinal peristalsis, vascular constriction, and bladder contraction.

- **Benzene (CAS #71-43-2)** poisoning occurs most commonly through inhalation of the vapor; however, benzene can also penetrate the skin and poison in that way. Locally, benzene has a comparatively strong irritating effect, producing erythema and burning and, in more severe cases, edema and blistering. Exposure to high concentrations of the vapor (i.e., 3,000 ppm or higher) may result in acute poisoning characterized by the narcotic action of benzene on the central nervous system. In acute poisoning, symptoms include confusion, dizziness, tightening of the leg muscles, and pressure over the forehead. Chronic exposure to benzene (i.e., long-term exposure to concentrations of 100 ppm or less) may lead to damage of the blood-forming system. Benzene is very flammable when exposed to heat or flame and can react vigorously with oxidizing materials.
- **Cadmium** is a natural element and is usually combined with one or more elements, such as oxygen, chloride or sulfur. Breathing high levels of cadmium severely damages the lungs and can cause death. Ingestion of high levels of cadmium severely irritates the stomach, leading to vomiting and diarrhea. Long term exposure to lower levels of cadmium leads to a buildup of this substance in the kidneys and possible kidney disease. Other potential long term effects are lung damage and fragile bones. Cadmium is suspected to be a human carcinogen.
- **Ethylbenzene (CAS #100-41-4)** is a component of automobile gasoline. Over-exposure may cause kidney, skin liver and/or respiratory disease. Signs of exposure may include dermatitis, irritation of the eyes and mucus membranes, headache. Narcosis and coma may result in more severe cases.
- **Lead (CAS #7439-92-1)** can affect almost every organ and system in our bodies. The most sensitive is the central nervous system, particularly in children. Lead also damages kidneys and the immune system. The effects are the same whether it is breathed or swallowed. Lead may decrease reaction time, cause weakness in fingers, wrists or ankles and possibly affect memory. Lead may cause anemia.
- **Mercury (CAS #7439-97-6)** is used in industrial applications for the production of caustic and chlorine, and in electrical control equipment and apparatus. Over-exposure to mercury may cause coughing, chest pains, bronchitis, pneumonia, indecision, headaches, fatigue and salivation. Mercury is a skin and eye irritant.
- **Polycyclic Aromatic Hydrocarbons (PAHs)** are formed as a result of the pyrolysis and incomplete combustion of organic matter such as fossil fuel. PAH aerosols formed during the combustion process disperse throughout the atmosphere, resulting in the deposition of PAH condensate in soil, water and on vegetation. In addition, several products formed from petroleum processing operations (e.g., roofing materials and asphalt) also contain elevated levels of

PAHs. Hence, these compounds are widely dispersed in the environment. PAHs are characterized by a molecular structure containing three or more fused, unsaturated carbon rings. Seven of the PAHs are classified by USEPA as probable human carcinogens (USEPA Class B2). These are: benzo(a)pyrene; benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene. The primary route of exposure to PAHs is through incidental ingestion and inhalation of contaminated particulates. PAHs are characterized by an organic odor, and exist as oily liquids in pure form. Acute exposure symptoms may include acne-type blemishes in areas of the skin exposed to sunlight.

- **Toluene (CAS #108-88-3)** is a common component of paint thinners and automobile fuel. Acute exposure predominantly results in central nervous system depression. Symptoms include headache, dizziness, fatigue, muscular weakness, drowsiness, and coordination loss. Repeated exposures may cause removal of lipids from the skin, resulting in dry, fissured dermatitis.
- **Xylenes (o, m, and p) (CAS #95-47-6, 108-38-3, and 106-42-3)** are colorless, flammable liquids present in paint thinners and fuels. Acute exposure may cause central nervous system depression, resulting in headache, dizziness, fatigue, muscular weakness, drowsiness, and coordination loss. Repeated exposures may also cause removal of lipids from the skin, producing dry, fissured dermatitis. Exposure of high concentrations of vapor may cause eye irritation and damage, as well as irritation of the mucus membranes.

With respect to the anticipated BCP activities discussed in Section 1.5, possible routes of exposure to the above-mentioned contaminants are presented in Table 3. The use of proper respiratory equipment, as outlined in Section 7.0 of this HASP, will minimize the potential for exposure to airborne contamination. Exposure to contaminants through dermal and other routes will also be minimized through the use of protective clothing (Section 7.0), safe work practices (Section 6.0), and proper decontamination procedures (Section 12.0).

3.2 Physical Hazards

BCP remedial activities at the Site may present the following physical hazards:

- The potential for physical injury during heavy construction equipment use, such as grading equipment, excavators, and tandem trucks.
- The potential for heat/cold stress to employees during the summer/winter months (see Section 10.0).
- The potential for slip and fall injuries due to rough, uneven terrain and/or open

excavations.

These hazards represent only some of the possible means of injury that may be present during remedial activities at the Site. Since it is impossible to list all potential sources of injury, it shall be the responsibility of each individual to exercise proper care and caution during all phases of the work.

4.0 TRAINING

4.1 Site Workers

All personnel performing remedial activities at the Site (such as, but not limited to, equipment operators, general laborers, and supervisors) and who may be exposed to hazardous substances, health hazards, or safety hazards and their supervisors/ managers responsible for the Site shall receive training in accordance with 29 CFR 1910.120(e) before they are permitted to engage in operations in the exclusion zone or contaminant reduction zone. This training includes an initial 40-hour Hazardous Waste Site Worker Protection Course, an 8-hour Annual Refresher Course subsequent to the initial 40-hour training, and 3 days of actual field experience under the direct supervision of a trained, experienced supervisor. Additional site-specific training shall also be provided by the SSHO prior to the start of field activities. A description of topics to be covered by this training is provided below.

4.1.1 Initial and Refresher Training

Initial and refresher training is conducted by a qualified instructor as specified under OSHA 29 CFR 1910.120(e)(5), and is specifically designed to meet the requirements of OSHA 29 CFR 1910.120(e)(3) and 1910.120(e)(8). The training covers, as a minimum, the following topics:

- OSHA HAZWOPER regulations.
- Site safety and hazard recognition, including chemical and physical hazards.
- Medical monitoring requirements.
- Air monitoring, permissible exposure limits, and respiratory protection level classifications.
- Appropriate use of personal protective equipment (PPE), including chemical compatibility and respiratory equipment selection and use.
- Work practices to minimize risk.
- Work zones and site control.
- Safe use of engineering controls and equipment.
- Decontamination procedures.

- Emergency response and escape.
- Confined space entry procedures.
- Heat and cold stress monitoring.
- Elements of a Health and Safety Plan.
- Spill containment.

Initial training also incorporates workshops for PPE and respiratory equipment use (Levels A, B and C), and respirator fit testing. Records and certification received from the course instructor documenting each employee's successful completion of the training identified above are maintained on file at Benchmark's Buffalo, NY office. Contractors and Subcontractors are required to provide similar documentation of training for all their personnel who will be involved in on-site work activities.

Any employee who has not been certified as having received health and safety training in conformance with 29 CFR 1910.120(e) is prohibited from working in the exclusion and contamination reduction zones, or to engage in any on-site work activities that may involve exposure to hazardous substances or wastes.

4.1.2 Site Training

Site workers are given a copy of the HASP and provided a site-specific briefing prior to the commencement of work to ensure that employees are familiar with the HASP and the information and requirements it contains. The site briefing shall be provided by the SSHO prior to initiating field activities and shall include:

- Names of personnel and alternates responsible for site safety and health.
- Safety, health and other hazards present on the Site.
- The Site lay-out including work zones and places of refuge.
- The emergency communications system and emergency evacuation procedures.
- Use of PPE.
- Work practices by which the employee can minimize risks from hazards.
- Safe use of engineering controls and equipment on the site.
- Medical surveillance, including recognition of symptoms and signs of over-exposure as described in Chapter 5 of this HASP.

- Decontamination procedures as detailed in Chapter 12 of this HASP.
- The emergency response plan as detailed in Chapter 15 of this HASP.
- Confined space entry procedures, if required, as detailed in Chapter 13 of this HASP.
- The spill containment program as detailed in Chapter 9 of this HASP.
- Site control as detailed in Chapter 11 of this HASP.

Supplemental health and safety briefings will also be conducted by the SSHO on an as-needed basis during the course of the work. Supplemental briefings are provided as necessary to notify employees of any changes to this HASP as a result of information gathered during ongoing site characterization and analysis. Conditions for which the SSHO may schedule additional briefings include, but are not limited to: a change in Site conditions (i.e., based on monitoring results); changes in the work schedule/plan; newly discovered hazards; and safety incidents occurring during Site work.

4.2 Supervisor Training

On-site safety and health personnel who are directly responsible for or who supervise the safety and health of workers engaged in hazardous waste operations (i.e., SSHO) shall receive, in addition to the appropriate level of worker training described in Section 4.1, above, 8 additional hours of specialized supervisory training, in compliance with 29 CFR 1910.120(e)(4).

4.3 Emergency Response Training

Emergency response training is addressed in Appendix A of this HASP, Emergency Response Plan.

4.4 Site Visitors

Each Contractor's SSHO will provide a site-specific briefing to all site visitors and other non-Benchmark personnel who enter the Site beyond the site entry point. The site-specific briefing will provide information about site hazards, the site layout including work

zones and places of refuge, the emergency communications system and emergency evacuation procedures, and other pertinent safety and health requirements as appropriate.

Site visitors will not be permitted to enter the exclusion zone or contaminant reduction zones unless they have received the level of training required for site workers as described in Section 4.1.

5.0 MEDICAL MONITORING

Medical monitoring examinations are provided to Benchmark employees as stipulated under 29 CFR Part 1910.120(f). These exams include initial employment, annual, and employment termination physicals for all Benchmark employees involved in hazardous waste site field operations. Post-exposure examinations are also provided for employees who may have been injured, received a health impairment, or developed signs or symptoms of over-exposure to hazardous substances or were accidentally exposed to substances at concentrations above the permissible exposure limits without necessary personal protective equipment. Such exams are performed as soon as possible following development of symptoms or the known exposure event.

Medical evaluations are performed by ADP Screening & Selection Services, an occupational health care provider under contract with Benchmark. ADP's local facility is Health Works WNY, Seneca Square Plaza, 1900 Ridge Road, West Seneca, New York 14224. The facility can be reached at (716) 823-5050 to schedule routine appointments or post-exposure examinations.

Medical evaluations are conducted according to the Benchmark Medical Monitoring Program and include an evaluation of the workers' ability to use respiratory protective equipment. The purpose of the medical evaluation is to determine an employee's fitness for duty on hazardous waste sites; and to establish baseline medical data. The examinations include:

- Occupational/medical history review.
- Physical exam, including vital sign measurement.
- Spirometry testing.
- Eyesight testing.
- Audio testing (minimum baseline and exit, annual for employees routinely exposed to greater than 85db).
- EKG (for employees >40 yrs age or as medical conditions dictate).
- Chest X-ray (baseline and exit, and every 5 years).
- Blood biochemistry (including blood count, white cell differential count, serum multiplastic screening).
- Medical certification of physical requirements (i.e., sight, musculoskeletal, cardiovascular) for safe job performance and to wear respiratory protection

equipment.

In conformance with OSHA regulations, Benchmark will maintain and preserve medical records for a period of 30 years following termination of employment. Employees are provided a copy of the physician's post-exam report, and have access to their medical records and analyses.

6.0 SAFE WORK PRACTICES

All Benchmark employees shall conform to the following safe work practices during all on-site work activities conducted within the exclusion and contamination reduction zones:

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth contact is strictly prohibited.
- The hands and face must be thoroughly washed upon leaving the work area and prior to engaging in any activity indicated above.
- Respiratory protective equipment and clothing must be worn by all personnel entering the site as required by the HASP or as modified by the site safety officer. Excessive facial hair (i.e., beards, long mustaches or sideburns) that interferes with the satisfactory respirator-to-face seal is prohibited.
- Contact with surfaces/materials either suspected or known to be contaminated will be avoided to minimize the potential for transfer to personnel, cross contamination and need for decontamination.
- Medicine and alcohol can synergize the effects of exposure to toxic chemicals. Due to possible contraindications, use of prescribed drugs should be reviewed with the Benchmark occupational physician. Alcoholic beverage and illegal drug intake are strictly forbidden during the workday.
- All personnel shall be familiar with standard operating safety procedures and additional instructions contained in this Health and Safety Plan.
- On-site personnel shall use the “buddy” system. No one may work alone (i.e., out of earshot or visual contact with other workers) in the exclusion zone.
- Personnel and equipment in the contaminated area shall be minimized, consistent with effective site operations.
- All employees have the obligation to immediately report and if possible, correct unsafe work conditions.
- Use of contact lenses on-site will not be permitted. Spectacle kits for insertion into full-face respirators will be provided for Benchmark employees, as requested and required.

The recommended specific safety practices for working around the contractor’s equipment (e.g., backhoes, bulldozers, excavators, etc.) are as follows:

- Although the Contractor and subcontractors are responsible for their equipment and safe operation of the site, Benchmark personnel are also responsible for their

own safety.

- Subsurface work will not be initiated without first clearing underground utility services.
- Heavy equipment should not be operated within 20 feet of overhead wires. This distance may be increased if windy conditions are anticipated or if lines carry high voltage. The site should also be sufficiently clear to ensure the project staff can move around the heavy machinery safely.
- Care should be taken to avoid overhead wires when moving heavy-equipment from location to location.
- Hard hats, safety boots and safety glasses should be worn at all times in the vicinity of heavy equipment. Hearing protection is also recommended.
- The work site should be kept neat. This will prevent personnel from tripping and will allow for fast emergency exit from the site.
- Proper lighting must be provided when working at night.
- Construction activities should be discontinued during an electrical storm or severe weather conditions.
- The presence of combustible gases should be checked before igniting any open flame.
- Personnel shall stand upwind of any construction operation when not immediately involved in sampling/logging/observing activities.
- Personnel will not approach the edge of an unsecured trench/excavation closer than 2 feet.

7.0 PERSONAL PROTECTIVE EQUIPMENT

7.1 Equipment Selection

Personal protective equipment (PPE) will be donned when work activities may result in exposure to physical or chemical hazards beyond acceptable limits, and when such exposure can be mitigated through appropriate PPE. The selection of PPE will be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the Site, the task-specific conditions and duration, and the hazards and potential hazards identified at the site.

Equipment designed to protect the body against contact with known or suspect chemical hazards are grouped into four categories according to the degree of protection afforded. These categories designated A through D consistent with USEPA Level of Protection designation, are:

- **Level A:** Should be selected when the highest level of respiratory, skin and eye protection is needed.
- **Level B:** Should be selected when the highest level of respiratory protection is needed, but a lesser level of skin protection is required. Level B protection is the minimum level recommended on initial site entries until the hazards have been further defined by on-site studies. Level B (or Level A) is also necessary for oxygen-deficient atmospheres.
- **Level C:** Should be selected when the types of airborne substances are known, the concentrations have been measured and the criteria for using air-purifying respirators are met. In atmospheres where no airborne contaminants are present, Level C provides dermal protection only.
- **Level D:** Should not be worn on any site with elevated respiratory or skin hazards. This is generally a work uniform providing minimal protection.

OSHA requires the use of certain PPE under conditions where an immediate danger to life and health (IDLH) may be present. Specifically, OSHA 29 CFR 1910.120(g)(3)(iii) requires use of a positive pressure self-contained breathing apparatus, or positive pressure air-line respirator equipped with an escape air supply when chemical exposure levels present a substantial possibility of immediate serious injury, illness or death, or impair the ability to escape. Similarly, OSHA 29 CFR 1910.120(g)(3)(iv) requires donning totally encapsulating chemical protective suits (with a protection level equivalent to Level A protection) in

conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate serious illness, injury or death, or impair the ability to escape.

In situations where the types of chemicals, concentrations, and possibilities of contact are unknown, the appropriate level of protection must be selected based on professional experience and judgment until the hazards can be further characterized. The individual components of clothing and equipment must be assembled into a full protective ensemble to protect the worker from site-specific hazards, while at the same time minimizing hazards and drawbacks of the personal protective gear itself. Ensemble components are detailed below for levels A/B, C, and D protection.

7.2 Protection Ensembles

7.2.1 Level A/B Protection Ensemble

Level A/B ensembles include similar respiratory protection, however Level A provides a higher degree of dermal protection than Level B. Use of Level A over Level B is determined by: comparing the concentrations of identified substances in the air with skin toxicity data, and assessing the effect of the substance (by its measured air concentrations or splash potential) on the small area of the head and neck unprotected by Level B clothing. The recommended PPE for level A/B is:

- Pressure-demand, full-face piece self-contained breathing apparatus (MSHA/-NIOSH approved) or pressure-demand supplied-air respirator with escape self-contained breathing apparatus (SCBA).
- Chemical-resistant clothing. For Level A, clothing consists of totally-encapsulating chemical resistant suit. Level B incorporates hooded one-or two-piece chemical splash suit.
- Inner and outer chemical resistant gloves.
- Chemical-resistant safety boots/shoes.
- Hardhat.

7.2.2 Level C Protection Ensemble

Level C protection is distinguished from Level B by the equipment used to protect the respiratory system, assuming the same type of chemical-resistant clothing is used. The

main selection criterion for Level C is that conditions permit wearing an air-purifying device. The device (when required) must be an air-purifying respirator (MSHA/NIOSH approved) equipped with filter cartridges. Cartridges must be able to remove the substances encountered. Respiratory protection will be used only with proper fitting, training and the approval of a qualified individual. In addition, an air-purifying respirator can be used only if: oxygen content of the atmosphere is at least 19.5% in volume; substances are identified and concentrations measured; substances have adequate warning properties; the individual passes a qualitative fit-test for the mask; and an appropriate cartridge/canister is used, and its service limit concentration is not exceeded. Recommended PPE for Level C conditions includes:

- Full-face piece, air-purifying respirator equipped with MSHA and NIOSH approved organic vapor/acid gas/dust/mist combination cartridges or as designated by the SSHO.
- Chemical-resistant clothing (hooded, one or two-piece chemical splash suit or disposable chemical-resistant one-piece suit).
- Inner and outer chemical-resistant gloves.
- Chemical-resistant safety boots/shoes.
- Hardhat.

An air-monitoring program is part of all response operations when atmospheric contamination is known or suspected. It is particularly important that the air be monitored thoroughly when personnel are wearing air-purifying respirators. Continual surveillance using direct-reading instruments is needed to detect any changes in air quality necessitating a higher level of respiratory protection.

7.2.3 Level D Protection Ensemble

As indicated above, Level D protection is primarily a work uniform. It can be worn in areas where only boots can be contaminated, where there are no inhalable toxic substances and where the atmospheric contains at least 19.5% oxygen. Recommended PPE for Level D includes:

- Coveralls.
- Safety boots/shoes.

- Safety glasses or chemical splash goggles.
- Hardhat.
- Optional gloves; escape mask; face shield.

7.2.4 Recommended Level of Protection for Site Tasks

Based on current information regarding both the contaminants suspected to be present at the Site and the various tasks that are included in the remedial activities, the minimum required Levels of Protection for these tasks shall be as identified in Table 4.

8.0 EXPOSURE MONITORING

8.1 General

Based on the results of historic sample analysis and the nature of the proposed work activities at the Site, the possibility exists that organic vapors and/or particulates may be released to the air during intrusive construction activities. Ambient breathing zone concentrations may at times, exceed the permissible exposure limits (PELs) established by OSHA for the individual compounds (see Table 2), in which case respiratory protection will be required. Respiratory and dermal protection may be modified (upgraded or downgraded) by the SSHO based upon real-time field monitoring data.

8.1.1 On-Site Work Zone Monitoring

Benchmark personnel will conduct routine, real-time air monitoring during all intrusive construction phases such as excavation, backfilling, drilling, etc. The work area will be monitored at regular intervals using a photo-ionization detector (PID), combustible gas meter and a particulate meter. Observed values will be recorded and maintained as part of the permanent field record.

Additional air monitoring measurements may be made by Benchmark personnel to verify field conditions during subcontractor oversight activities. Monitoring instruments will be protected from surface contamination during use. Additional monitoring instruments may be added if the situations or conditions change. Monitoring instruments will be calibrated in accordance with manufacturer's instructions before use.

8.1.2 Off-Site Community Air Monitoring

In addition to on-site monitoring within the work zone(s), monitoring at the downwind portion of the Site perimeter will be conducted. This will provide a real-time method for determination of substantial vapor and/or particulate releases to the surrounding community as a result of ground intrusive work.

Ground intrusive activities are defined by NYSDOH Generic Community Air Monitoring Plan (Ref. 1, Appendix 1A of DER-10) and attached as Appendix C. Ground intrusive activities include soil/waste excavation and handling, test pitting or trenching, and

the installation of soil borings or monitoring wells. Non-intrusive activities include the collection of soil and sediment samples or the collection of groundwater samples from existing wells. Continuous monitoring is required for ground intrusive activities and periodic monitoring is required for non-intrusive activities. Periodic monitoring consists of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring while bailing a well, and taking a reading prior to leaving a sampling location. This may be upgraded to continuous if the sampling location is in close proximity to individuals not involved in the site activity (i.e., on a curb of a busy street). The action levels below will be used during periodic monitoring. This will provide a real-time method for determination of substantial vapor and/or particulate releases to the surrounding community because of intrusive activities.

8.2 Monitoring Action Levels

8.2.1 On-Site Work Zone Action Levels

The PID, explosimeter, or other appropriate instrument(s), will be used by Benchmark personnel to monitor organic vapor concentrations as specified in this HASP. In addition, fugitive dust/particulate concentrations will be monitored during major soil intrusion using a real-time particulate monitor as specified in this plan. In the absence of such monitoring, appropriate respiratory protection for particulates shall be donned. Sustained readings obtained in the breathing zone may be interpreted (with regard to other site conditions) as follows for Benchmark personnel:

- Total atmospheric concentrations of unidentified vapors or gases ranging from 0 to 1 ppm above background on the PID) - Continue operations under Level D (see Appendix A).
- Total atmospheric concentrations of unidentified vapors or gases yielding sustained readings from >1 ppm to 5 ppm above background on the PID (vapors not suspected of containing high levels of chemicals toxic to the skin) - Continue operations under Level C (see Appendix A).
- Total atmospheric concentrations of unidentified vapors or gases yielding sustained readings of >5 ppm to 50 ppm above background on the PID - Continue operations under Level B (see Attachment 1), re-evaluate and alter (if possible) construction methods to achieve lower vapor concentrations.

- Total atmospheric concentrations of unidentified vapors or gases above 50 ppm on the PID - Discontinue operations and exit the work zone immediately.

The explosimeter will be used to monitor levels of both combustible gases and oxygen during RD activities involving deep excavation, if required. Action levels based on the instrument readings shall be as follows:

- Less than 10% LEL - Continue engineering operations with caution.
- 10-25% LEL - Continuous monitoring with extreme caution, determine source/cause of elevated reading.
- Greater than 25% LEL - Explosion hazard, evaluate source and leave the Work Zone.
- 19.5-21% oxygen - Proceed with extreme caution; attempt to determine potential source of oxygen displacement.
- Less than 19.5% oxygen - Leave work zone immediately.
- 21-25% oxygen - Continue engineering operations with caution.
- Greater than 25% oxygen - Fire hazard potential, leave Work Zone immediately.

The particulate monitor will be used to monitor respirable dust concentrations during all intrusive activities and during handling of site soil/fill. Action levels based on the instrument readings shall be as follows:

- Less than 50 $\mu\text{g}/\text{m}^3$ - Continue field operations.
- 50-150 $\mu\text{g}/\text{m}^3$ - Don dust/particulate mask or equivalent
- Greater than 150 $\mu\text{g}/\text{m}^3$ - Don dust/particulate mask or equivalent. Initiate engineering controls to reduce respirable dust concentration (i.e., wetting of excavated soils or tools at discretion of SSHO).

Readings with the organic vapor analyzer, combustible gas meter, and particulate monitor will be recorded and documented on the appropriate Project Field Forms. All instruments will be calibrated before use on a daily basis and the procedure will be documented on the appropriate Project Field Forms.

8.2.2 *Community Air Monitoring Action Levels*

In addition to the action levels prescribed in Section 8.2.1 for Benchmark personnel on-site, the following criteria shall also be adhered to for the protection of downwind receptors consistent with NYSDOH requirements (Appendix C):

o **ORGANIC VAPOR PERIMETER MONITORING:**

- If the sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone exceeds 5 ppm above background, work activities will be halted and monitoring continued. If the sustained organic vapor decreases below 5 ppm over background, work activities can resume but more frequent intervals of monitoring, as directed by the SSHO, must be conducted.
- If the sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone are greater than 5 ppm over background but less than 25 ppm, activities can resume provided that: the organic vapor level 200 feet downwind of the working site or half the distance to the nearest off-site residential or commercial structure, whichever is less, is below 5 ppm over background; and more frequent intervals of monitoring, as directed by the SSHO, are conducted.
- If the sustained organic vapor level is above 25 ppm at the perimeter of the exclusion zone, the SSHO must be notified and work activities shut down. The SSHO will determine when re-entry of the exclusion zone is possible and will implement downwind air monitoring to ensure vapor emissions do not impact the nearest off-site residential or commercial structure at levels exceeding those specified in the ***Organic Vapor Contingency Monitoring Plan*** below. All readings will be recorded and will be available for New York State Department of Environmental Conservation (NYSDEC) and Department of Health (NYSDOH) personnel to review.

o **ORGANIC VAPOR CONTINGENCY MONITORING PLAN:**

- If the sustained organic vapor level is greater than 5 ppm over background 200 feet downwind from the work area or half the distance to the nearest off-site residential or commercial property, whichever is less, all work activities must be halted.
- If, following the cessation of the work activities or as the result of an emergency, sustained organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest off-site residential or commercial property from the work area, then the air quality must be

monitored within 20 feet of the perimeter of the nearest off-site residential or commercial structure (20-foot zone).

- If efforts to abate the emission source are unsuccessful and if sustained organic vapor levels approach or exceed 5 ppm above background within the 20-foot zone for more than 30 minutes, or are sustained at levels greater than 10 ppm above background for longer than one minute, then the ***Major Vapor Emission Response Plan*** (see below) will automatically be placed into effect.

o **Major Vapor Emission Response Plan:**

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in this Health and Safety Plan and the Emergency Response Plan (Appendix A) will be advised.
2. The local police authorities will immediately be contacted by the SSHO and advised of the situation.
3. Frequent air monitoring will be conducted at 30-minute intervals within the 20-foot zone. If two sustained successive readings below action levels are measured, air monitoring may be halted or modified by the SSHO.

The following personnel are to be notified in the listed sequence in the event that a Major Vapor Emission Plan is activated:

Responsible Person	Contact	Phone Number
SSHO	Police	911
SSHO	State Emergency Response Hotline	(800) 457-7362

Additional emergency numbers are listed in the Emergency Response Plan included as Appendix A.

o **EXPLOSIVE VAPORS:**

- Sustained atmospheric concentrations of greater than 10% LEL in the work area - Initiate combustible gas monitoring at the downwind portion of the Site perimeter.
- Sustained atmospheric concentrations of greater than 10% LEL at the downwind Site perimeter – Halt work and contact local Fire Department.

○ **Airborne Particulate Community Air Monitoring**

Respirable (PM-10) particulate monitoring will be performed on a continuous basis at the upwind and downwind perimeter of the exclusion zone. The monitoring will be performed using real-time monitoring equipment capable of measuring PM-10 and integrating over a period of 15-minutes for comparison to the airborne particulate action levels. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities. All readings will be recorded and will be available for NYSDEC and NYSDOH review. Readings will be interpreted as follows:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) greater than the background (upwind perimeter) reading for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression provided that the downwind PM-10 particulate levels do not exceed 150 $\mu\text{g}/\text{m}^3$ above the upwind level and that visible dust is not migrating from the work area.
- If, after implementation of dust suppression techniques downwind PM-10 levels are greater than 150 $\mu\text{g}/\text{m}^3$ above the upwind level, work activities must be stopped and dust suppression controls re-evaluated. Work can resume provided that supplemental dust suppression measures and/or other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu\text{g}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

Pertinent emergency response information including the telephone number of the Fire Department is included in the Emergency Response Plan (Appendix A).

9.0 SPILL RELEASE/RESPONSE

This chapter of the HASP describes the potential for and procedures related to spills or releases of known or suspected petroleum and/or hazardous substances on the Site. The purpose of this Section of the HASP is to plan appropriate response, control, counter-measures and reporting, consistent with OSHA requirements in 29 CFR 1910.120(b)(4)(ii)(J) and (j)(1)(viii). The spill containment program addresses the following elements:

- Potential hazardous material spills and available controls.
- Initial notification and evaluation.
- Spill response.
- Post-spill evaluation.

9.1 Potential Spills and Available Controls

An evaluation was conducted to determine the potential for hazardous material and oil/petroleum spills at this site. For the purpose of this evaluation, hazardous materials posing a significant spill potential are considered to be:

- CERCLA Hazardous Substances as identified in 40 CFR Part 302, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).
- Extremely Hazardous Substances as identified in 40 CFR Part 355, Appendix A, where such materials pose the potential for release in excess of their corresponding RQ.
- Hazardous Chemicals as defined under Section 311(e) of the Emergency Planning and Community Right-To-Know Act of 1986, where such chemicals are present or will be stored in excess of 10,000 lbs.
- Toxic Chemicals as defined in 40 CFR Part 372, where such chemicals are present or will be stored in excess of 10,000 lbs.
- Chemicals regulated under 6NYCRR Part 597, where such materials pose the potential for release in excess of their corresponding RQ.

Oil/petroleum products are considered to pose a significant spill potential whenever the following situations occur:

- The potential for a “harmful quantity” of oil (including petroleum and non-petroleum-based fuels and lubricants) to reach navigable waters of the U.S. exists (40 CFR Part 112.4). Harmful quantities are considered by USEPA to be

volumes that could form a visible sheen on the water or violate applicable water quality standards.

- The potential for any amount of petroleum to reach any waters of NY State, including groundwater, exists. Petroleum, as defined by NY State in 6NYCRR Part 612, is a petroleum-based heat source, energy source, or engine lubricant/maintenance fluid.
- The potential for any release, to soil or water, of petroleum from a bulk storage facility regulated under 6NYCRR Part 612. A regulated petroleum storage facility is defined by NY State as a site having stationary tank(s) and intra-facility piping, fixtures and related equipment with an aggregate storage volume of 1,100 gallons or greater.

The evaluation indicates that, based on site history and decommissioning records, a hazardous material spill and/or a petroleum product spill is not likely to occur during Remedial efforts.

9.2 Initial Spill Notification and Evaluation

Any worker who discovers a hazardous substance or oil/petroleum spill will immediately notify the Project Manager and SSHO. The worker will, to the best of his/her ability, report the material involved, the location of the spill, the estimated quantity of material spilled, the direction/flow of the spill material, related fire/explosion incidents, if any, and any associated injuries. The Emergency Response Plan presented as Appendix A of this HASP will immediately be implemented if an emergency release has occurred.

Following initial report of a spill, the Project Manager will make an evaluation as to whether the release exceeds RQ levels. If an RQ level is exceeded, the Project Manager will notify the site owner and NYSDEC at 1-800-457-7362 within 2 hours of spill discovery. The Project Manager will also determine what additional agencies (e.g., USEPA) are to be contacted regarding the release, and will follow-up with written reports as required by the applicable regulations.

9.3 Spill Response

For all spill situations, the following general response guidelines will apply:

- Only those personnel involved in overseeing or performing containment operations will be allowed within the spill area. If necessary, the area will be

roped, ribboned, or otherwise blocked off to prevent unauthorized access.

- Appropriate PPE, as specified by the SSHO, will be donned before entering the spill area.
- Ignition points will be extinguished/removed if fire or explosion hazards exist.
- Surrounding reactive materials will be removed.
- Drains or drainage in the spill area will be blocked to prevent inflow of spilled materials or applied materials.

For minor spills, the Contractor will maintain a Spill Control and Containment Kit in the Field Office or other readily accessible storage location. The kit will consist of, at a minimum, a 50 lb. bag of “speedy dry” granular absorbent material, absorbent pads, shovels, empty 5-gallon pails and an empty open-top 55-gallon drum. Spilled materials will be absorbed, and shoveled into a 55-gallon drum for proper disposal (NYSDEC approval will be secured for on-site treatment of the impacted soils/absorbent materials, if applicable). Impacted soils will be hand-excavated to the point that no visible signs of contamination remains, and will be drummed with the absorbent.

In the event of a major release or a release that threatens surface water, a spill response contractor will be called to the site. The response contractor may use heavy equipment (i.e., excavator, backhoe, etc.) to berm the soils surrounding the spill site or create diversion trenching to mitigate overland migration or release to navigable waters. Where feasible, pumps will be used to transfer free liquid to storage containers. Spill control/cleanup contractors in the Western New York area that may be contacted for assistance include:

- The Environmental Service Group of NY, Inc: (716) 695-6720
- Op-Tech: (716) 525-1962

9.4 Post-Spill Evaluation

If a reportable quantity of hazardous material or oil/petroleum is spilled as determined by the Project Manager, a written report will be prepared as indicated in Section 9.2. The report will identify the root cause of the spill, type and amount of material released, date/time of release, response actions, agencies notified and/or involved in cleanup, and procedures to be implemented to avoid repeat incidents. In addition, all re-useable spill

cleanup and containment materials will be decontaminated, and spill kit supplies/disposable items will be replenished.

10.0 HEAT/COLD STRESS MONITORING

Since some of the work activities at the Site may be scheduled for both summer and winter months, measures will be taken to minimize heat/cold stress to Benchmark employees. The SSHO and/or his or her designee will be responsible for monitoring Benchmark field personnel for symptoms of heat/cold stress.

10.1 Heat Stress Monitoring

Personal protective equipment may place an employee at risk of developing heat stress, a common and potentially serious illnesses often encountered at construction, landfill, waste disposal, industrial or other unsheltered sites. The potential for heat stress is dependent on a number of factors, including environmental conditions, clothing, workload, physical conditioning and age. Personal protective equipment may severely reduce the body's normal ability to maintain temperature equilibrium (via evaporation and convection), and require increased energy expenditure due to its bulk and weight.

Proper training and preventive measures will mitigate the potential for serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat related illness. To avoid heat stress, the following steps should be taken:

- Adjust work schedules.
- Modify work/rest schedules according to monitoring requirements.
- Mandate work slowdowns as needed.
- Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.
- Provide shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.
- Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat (i.e., eight fluid ounces must be ingested for approximately every 1 lb of weight lost). The normal thirst mechanism is not sensitive enough to ensure that enough water will be consumed to replace lost perspiration. When heavy sweating occurs, workers should be encouraged to drink more.
- Train workers to recognize the symptoms of heat related illness.

Heat-Related Illness - Symptoms:

- Heat rash may result from continuous exposure to heat or humid air.
- Heat cramps are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include: muscle spasms; pain in the hands, feet and abdomen.
- Heat exhaustion occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include: pale, cool, moist skin; heavy sweating; dizziness; nausea; fainting.
- Heat stroke is the most serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are: red, hot, usually dry skin; lack of or reduced perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma.

The monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70 degrees Fahrenheit or above. For monitoring the body's recuperative ability to excess heat, one or more of the following techniques should be used as a screening mechanism.

- Heart rate may be measured by the radial pulse for 30 seconds as early as possible in the resting period. The rate at the beginning of the rest period should not exceed 100 beats per minute. If the rate is higher, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest periods stay the same. If the pulse rate is 100 beats per minute at the beginning of the next rest period, the following work cycle should be further shortened by 33%.
- Body temperature may be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature at the beginning of the rest period should not exceed 99.6 degrees Fahrenheit. If it does, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest period remains the same. However, if the oral temperature exceeds 99.6 degrees Fahrenheit at the beginning of the next period, the work cycle may be further shortened by 33%. Oral temperature should be measured at the end of the rest period to make sure that it has dropped below 99.6 degrees Fahrenheit. No Benchmark employee will be permitted to continue wearing semi-permeable or impermeable garments when his/her oral temperature exceeds 100.6 degrees Fahrenheit.

10.2 Cold Stress Monitoring

Exposure to cold conditions may result in frostbite or hypothermia, each of which progresses in stages as shown below.

- **Frostbite** occurs when body tissue (usually on the extremities) begins to freeze. The three states of frostbite are:
 - 1) **Frost nip** - This is the first stage of the freezing process. It is characterized by a whitened area of skin, along with a slight burning or painful sensation. Treatment consists of removing the victim from the cold conditions, removal of boots and gloves, soaking the injured part in warm water (102 to 108 degrees Fahrenheit) and drinking a warm beverage. Do not rub skin to generate friction/ heat.
 - 2) **Superficial Frostbite** - This is the second stage of the freezing process. It is characterized by a whitish gray area of tissue, which will be firm to the touch but will yield little pain. The treatment is identical for Frost nip.
 - 3) **Deep Frostbite** - In this final stage of the freezing process the affected tissue will be cold, numb and hard and will yield little to no pain. Treatment is identical to that for Frost nip.
- **Hypothermia** is a serious cold stress condition occurring when the body loses heat at a rate faster than it is produced. If untreated, hypothermia may be fatal. The stages of hypothermia may not be clearly defined or visible at first, but generally include:
 - 1) Shivering
 - 2) Apathy (i.e., a change to an indifferent or uncaring mood)
 - 3) Unconsciousness
 - 4) Bodily freezing

Employees exhibiting signs of hypothermia should be treated by medical professionals. Steps that can be taken while awaiting help include:

- 1) Remove the victim from the cold environment and remove wet or frozen clothing. (Do this carefully as frostbite may have started.)
- 2) Perform active re-warming with hot liquids for drinking (Note: do not give the victim any liquid containing alcohol or caffeine) and a warm water bath (102 to 108 degrees Fahrenheit).
- 3) Perform passive re-warming with a blanket or jacket wrapped around the victim.

In any potential cold stress situation, it is the responsibility of the Site Health and Safety Officer to encourage the following:

- Education of workers to recognize the symptoms of frostbite and hypothermia.
- Workers should dress warmly, with more layers of thin clothing as opposed to one thick layer.
- Personnel should remain active and keep moving.
- Personnel should be allowed to take shelter in a heated areas, as necessary.
- Personnel should drink warm liquids (no caffeine or alcohol if hypothermia has set in).
- For monitoring the body's recuperation from excess cold, oral temperature recordings should occur:
 - At the Site Safety Technicians discretion when suspicion is based on changes in a worker's performance or mental status.
 - At a workers request.
 - As a screening measure, two times per shift, under unusually hazardous conditions (e.g., wind chill less than 20 degrees Fahrenheit or wind chill less than 30 degrees Fahrenheit with precipitation).
 - As a screening measure whenever anyone worker on site develops hypothermia.

Any person developing moderate hypothermia (a core body temperature of 92 degrees Fahrenheit) will not be allowed to return to work for 48 hours without the recommendation of a qualified medical doctor.

11.0 WORK ZONES & SITE CONTROL

Work zones around the areas designated for construction activities will be established on a daily basis and communicated to all employees and other site users by the SSHO. It shall be each Contractor's SSHO's responsibility to ensure that all site workers are aware of the work zone boundaries and to enforce proper procedures in each area. The zones will include:

- **Exclusion Zone ("Hot Zone"):** The area where contaminated materials may be exposed, excavated or handled and all areas where contaminated equipment or personnel may travel. The zone will be delineated by flagging tape. All personnel entering the Exclusion Zone must wear the prescribed level of personal protective equipment identified in Section 7.
- **Contamination Reduction Zone:** The zone where decontamination of personnel and equipment takes place. Any potentially contaminated clothing, equipment and samples must remain in the Contamination Reduction Zone until decontaminated.
- **Support Zone:** The part of the site that is considered non-contaminated or "clean." Support equipment will be located in this zone, and personnel may wear normal work clothes within this zone.

In the absence of other task-specific work zone boundaries established by the SSHO, the following boundaries will apply to all construction activities involving disruption or handling of site soils or groundwater:

- **Exclusion Zone:** 50 foot radius from the outer limit of the sampling/construction activity.
- **Contaminant Reduction Zone:** 100 foot radius from the outer limit of the sampling/construction activity.
- **Support Zone:** Areas outside the Contaminant Reduction Zone.

Access of non-essential personnel to the Exclusion and Contamination Reduction Zones will be strictly controlled by the SSHO. Only personnel who are essential to the completion of the task will be allowed access to these areas and only if they are wearing the prescribed level of protection. Entrance of all personnel must be approved by the SSHO.

The SSHO will maintain a Health and Safety Logbook containing the names of Benchmark workers and their level of protection. The zone boundaries may be changed by

the SSHO as environmental conditions warrant, and to respond to the necessary changes in work locations on-site.

12.0 DECONTAMINATION

12.1 Decontamination for Benchmark Employees

The degree of decontamination required is a function of a particular task and the environment within which it occurs. The following decontamination procedure will remain flexible, thereby allowing the decontamination crew to respond appropriately to the changing environmental conditions that may arise at the site. All Benchmark personnel on-site shall follow the procedure below, or the Contractor's procedure (if applicable), whichever is more stringent.

Station 1 - Equipment Drop: Deposit visibly contaminated (if any) re-useable equipment used in the contamination reduction and exclusion zones (tools, containers, monitoring instruments, radios, clipboards, etc.) on plastic sheeting.

Station 2 - Boots and Gloves Wash and Rinse: Scrub outer boots and outer gloves.

Station 3 - Tape, Outer Boot and Glove Removal: Remove tape, outer boots and gloves. Deposit tape and gloves in waste disposal container.

Station 4 - Canister or Mask Change: If worker leaves exclusive zone to change canister (or mask), this is the last step in the decontamination procedure. Worker's canister is exchanged, new outer gloves and boot cover donned, and worker returns to duty.

Station 5 - Outer Garment/Face Piece Removal: Protective suit removed and deposited in separate container provided by Contractor. Face piece or goggles are removed if used. Avoid touching face with fingers. Face piece and/or goggles deposited on plastic sheet. Hard hat removed and placed on plastic sheet.

Station 6 - Inner Glove Removal: Inner gloves are the last PPE to be removed. Avoid touching the outside of the gloves with bare fingers. Dispose of these gloves in waste disposal container.

Following PPE removal, personnel shall wash hands, face and forearms with absorbent wipes. If field activities proceed for a duration of 6 consecutive months or longer, shower facilities will be provided for worker use in accordance with OSHA 29 CFR 1910.120(n).

12.2 Decontamination for Medical Emergencies

In the event of a minor, non-life threatening injury, personnel should follow the decontamination procedures as defined, and then administer first-aid.

In the event of a major injury or other serious medical concern (e.g., heat stroke), immediate first-aid is to be administered and the victim transported to the hospital in lieu of further decontamination efforts unless exposure to a site contaminant would be considered “Immediately Dangerous to Life or Health.”

12.3 Decontamination of Field Equipment

Decontamination of heavy equipment will be conducted by the Contractor in accordance with his approved Health and Safety Plan in the Contamination Reduction Zone. As a minimum, this will include manually removing heavy soil contamination, followed by steam cleaning on an impermeable pad.

Decontamination of all tools used for sample collection purposes will be conducted by Benchmark personnel. It is expected that all tools will be constructed of nonporous, nonabsorbent materials (i.e., metal), which will aid in the decontamination effort. Any tool or part of a tool made of porous, absorbent material (i.e., wood) will be placed into suitable containers and prepared for disposal.

Decontamination of bailers, split-spoons, spatula knives, and other tools used for environmental sampling and examination shall be as follows:

- Disassemble the equipment.
- Water wash to remove all visible foreign matter.
- Wash with detergent.
- Rinse all parts with distilled-deionized water.
- Allow to air dry.
- Wrap all parts in aluminum foil or polyethylene.

13.0 CONFINED SPACE ENTRY

OSHA 29 CFR 1910.146 identifies a confined space as a space that is large enough and so configured that an employee can physically enter and do assigned work, has limited or restricted means for entry and exit, and is not intended for continuous employee occupancy. Confined spaces include, but are not limited to, trenches, storage tanks, process vessels, pits, sewers, tunnels, underground utility vaults, pipelines, sumps, wells, and excavations.

Confined space entry by Benchmark employees is not anticipated to be necessary to complete the remedial activities identified in Section 2.0. In the event that the scope of work changes or confined space entry appears necessary, the Project Manager will be consulted to determine if feasible engineering alternatives to confined space entry can be implemented. If confined space entry by Benchmark employees cannot be avoided through reasonable engineering measures, task-specific confined space entry procedures will be developed and a confined-space entry permit will be issued through Benchmark's corporate Health and Safety Director. Benchmark employees shall not enter a confined space without these procedures and permits in place.

14.0 FIRE PREVENTION & PROTECTION

14.1 General Approach

Recommended practices and standards of the National Fire Protection Association (NFPA) and other applicable regulations will be followed in the development and application of Project Fire Protection Programs. When required by regulatory authorities, the project management will prepare and submit a Fire Protection Plan for the approval of the contracting officers, authorized representative or other designated official. Essential considerations for the Fire Protection Plan will include:

- Proper site preparation and safe storage of combustible and flammable materials.
- Availability of coordination with private and public fire authorities.
- Adequate job-site fire protection and inspections for fire prevention.
- Adequate indoctrination and training of employees.

14.2 Equipment and Requirements

Fire extinguishers will be provided by each Contractor and are required on all heavy equipment and in each field trailer. Fire extinguishers will be inspected, serviced, and maintained in accordance with the manufacturer's instructions. As a minimum, all extinguishers shall be checked monthly and weighed semi-annually, and recharged if necessary. Recharge or replacement shall be mandatory immediately after each use.

14.3 Flammable and Combustible Substances

All storage, handling or use of flammable and combustible substances will be under the supervision of qualified persons. All tanks, containers and pumping equipment, whether portable or stationary, used for the storage and handling of flammable and combustible liquids, will meet the recommendations of the NFPA.

14.4 Hot Work

If the scope of work necessitates welding or blowtorch operation, the hot work permit presented in Appendix B will be completed by the SSHO and reviewed/issued by the Project Manager.

15.0 EMERGENCY INFORMATION

In accordance with OSHA 29 CFR Part 1910, an Emergency Response Plan is attached to this HASP as Appendix A. Figure A-1 is the hospital route map.

16.0 REFERENCES

1. New York State Department of Health. 2010. *Generic Community Air Monitoring Plan, Appendix 1A, DER-10 Technical Guidance for Site Investigation and Remediation*. May.

TABLES

TABLE 1

PARAMETERS OF INTEREST

**Site Health & Safety Plan
295 Maryland Street Site
Buffalo, New York**

Parameter ¹	CAS No.	Maximum Detected Concentration ²		
		Groundwater (µg/L)	Surface Soil/Fill (mg/kg)	Subsurface Soil/Fill (mg/kg)
Volatile Organic Compounds (VOCs):				
Benzene	71-43-2	38	ND	0.8
Ethylbenzene	100-41-4	39	ND	ND
Toluene	108-88-3	18	ND	ND
Xylene, Total	1330-20-7	97	ND	ND
Polycyclic Aromatic Hydrocarbons (PAHs):				
Benz(a)anthracene	56-55-3	0.35	17	2
Benzo(a)pyrene	50-32-8	ND	13	1.6
Benzo(b)fluoranthene	205-99-2	ND	19	2.6
Benzo(k)fluoranthene	207-08-9	ND	8.1	0.98
Chrysene	218-01-9	ND	14	1.7
Dibenz(ah)anthracene	53-70-3	ND	0.61	ND
Indeno(1,2,3-cd)pyrene	193-39-5	ND	7	0.74
Inorganic Compounds:				
Arsenic	7440-38-2	ND	23	7.8
Barium	7440-39-3	0.332	516	552
Cadmium	7440-43-9	ND	4.2	2.26
Lead	7439-92-1	ND	8,160	1,420
Mercury	7439-97-6	ND	1	0.92

Notes:

1. Constituents were identified as parameters of interest during the Phase II and RAWP investigation.
2. Maximum detected concentrations as presented in the RAWP.

Acronyms:

- NA = Not analyzed.
ND = Parameter not detected above method detection limits.

TABLE 2

TOXICITY DATA FOR PARAMETERS OF INTEREST

Site Health & Safety Plan
295 Maryland Street Site
Buffalo, New York

Parameter	Synonyms	CAS No.	Code	Concentration Limits ¹		
				PEL	TLV	IDLH
Volatile Organic Compounds (VOCs): ppm						
Benzene	Benzol, Phenyl hydride	71-43-2	Ca	1	0.5	500
Ethylbenzene	Ethylbenzol, Phenylethane	100-41-4	none	100	100	800
Toluene	Methyl benzene, Methyl benzol	108-88-3	C-300	200	50	500
Xylene, Total	o-, m-, p-isomers	1330-20-7	none	100	100	900
Polycyclic Aromatic Hydrocarbons (PAHs) ² : ppm						
Benz(a)anthracene	none	56-55-3	none	--	--	--
Benzo(a)pyrene	none	50-32-8	none	--	--	--
Benzo(b)fluoranthene	none	205-99-2	none	--	--	--
Benzo(k)fluoranthene	none	207-08-9	none	--	--	--
Chrysene	none	218-01-9	none	--	--	--
Dibenz(ah)anthracene	none	53-70-3	none	--	--	--
Indeno(1,2,3-cd)pyrene	none	193-39-5	none	--	--	--
Inorganic Compounds: mg/m ³						
Arsenic	none	7440-38-2	Ca	0.01	0.01	5
Barium	none	7440-39-3	none	0.5	0.5	50
Cadmium	none	7440-43-9	Ca	0.005	0.01	9
Lead	none	7439-92-1	none	0.05	0.15	100
Mercury	none	7439-97-6	C-0.1	0.1	0.05	10

Notes:

1. Concentration limits as reported by NIOSH Pocket Guide to Chemical Hazards, February 2004 (NIOSH Publication No. 97-140, fourth printing with changes and updates).
2. Individual parameters listed are those most commonly detected at steel/coke manufacturing sites.
3. "--" = concentration limit not available; exposure should be minimized to the extent feasible through appropriate engineering controls & PPE.

Explanation:

Ca = NIOSH considers constituent to be a potential occupational carcinogen.

C-## = Ceiling Level equals the maximum exposure concentration allowable during the work day.

IDLH = Immediately Dangerous to Life or Health.

ND indicates that an IDLH has not as yet been determined.

TLV = Threshold Limit Value, established by American Conference of Industrial Hygienists (ACGIH), equals the maximum exposure concentration allowable for 8 hours/day @ 40 hours/week.

TLVs are the amounts of chemicals in the air that almost all healthy adult workers are predicted to be able to tolerate without adverse effects. There are three types.

TLV-TWA (TLV-Time-Weighted Average) which is averaged over the normal eight-hour day/fourty-hour work week. (Most TLVs.)

TLV-STEL or Short Term Exposure Limits are 15 minute exposures that should not be exceeded for even an instant. It is not a stand alone value but is accompanied by the TLV-TWA.

It indicates a higher exposure that can be tolerated for a short time without adverse effect as long as the total time weighted average is not exceeded.

TLV-C or Ceiling limits are the concentration that should not be exceeded during any part of the working exposure.

Unless the initials "STEL" or "C" appear in the Code column, the TLV value should be considered to be the eight-hour TLV-TWA.

PEL = Permissible Exposure Limit, established by OSHA, equals the maximum exposure concentration allowable for 8 hours per day @ 40 hours per week

TABLE 3

**POTENTIAL ROUTES OF EXPOSURE TO
PARAMETERS OF INTEREST**

**Site Health and Safety Plan
295 Maryland Street Site
Buffalo, New York**

Activity ¹	Direct Contact with Soil/Fill	Inhalation of Vapors or Dust	Direct Contact with Groundwater
1. Soil/Fill Excavation	x	x	
2. Soil/Fill Verification Sampling	x	x	
3. Surface Water Management			x
4. Subgrade Work	x	x	

Notes:

1. Activity as described in Section 1.5 of the Health and Safety Plan

TABLE 4

REQUIRED LEVELS OF PROTECTION FOR REMEDIAL ACTIVITIES

**Site Health and Safety Plan
295 Maryland Street Site
Buffalo, New York**

Activity	Respiratory Protection¹	Clothing	Gloves²	Boots^{2, 3}	Other Required PPE/Modifications^{2, 4}
1. Soil/Fill Excavation	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L	outer: L inner: STSS	HH SGSS
2. Soil/Fill Verification Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L	outer: L inner: STSS	HH SGSS
3. Surface Water Management	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
4. Subgrade Work	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L	outer: L inner: STSS	HH SGSS

Notes:

1. Respiratory equipment shall conform to guidelines presented in Section 7.0 of this HASP. The Level C requirement is an air-purifying respirator equipped with organic compound/acid gas/dust
2. HH = hardhat; L= Latex; L/N = latex inner glove, nitrile outer glove; N = Nitrile; S = Saranex; SG = safety glasses; SGSS = safety glasses with sideshields; STSS = steel toe safety shoes.
3. Latex outer boot (or approved overboot) required whenever contact with contaminated materials may occur. SSHO may downgrade to STSS (steel-toed safety shoes) if contact will be limited to cover/replacement soils.
4. Dust masks shall be donned as directed by the SSHO (site safety and health officer) or site safety technician whenever potentially contaminated airborne particulates (i.e., dust) are present in significant

APPENDIX A

EMERGENCY RESPONSE PLAN

SITE HASP – APPENDIX A

EMERGENCY RESPONSE PLAN

FOR

BROWNFIELD CLEANUP PROGRAM

295 MARYLAND STREET SITE
BUFFALO, NEW YORK

July 2011

0222-001-100

Prepared for:

295 MARYLAND, LLC

Prepared By:



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716)856-0599

SITE HEALTH AND SAFETY PLAN
295 MARYLAND STREET SITE
APPENDIX A: EMERGENCY RESPONSE PLAN

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APPENDIX A: EMERGENCY RESPONSE PLAN

1.0 GENERAL

This report presents the site-specific Emergency Response Plan (ERP) referenced in the Site Health and Safety Plan (HASP) prepared for remedial activities conducted at the 295 Maryland Street Site in Buffalo, New York. This appendix of the HASP describes potential emergencies that may occur at the Site; procedures for responding to those emergencies; roles and responsibilities during emergency response; and training all workers must receive in order to follow emergency procedures. This ERP also describes the provisions this Site has made to coordinate its emergency response planning with other contractors on-site and with off-site emergency response organizations. This ERP is consistent with the requirements of 29 CFR 1910.120(l) and provides the following site-specific information:

- Pre-emergency planning.
- Personnel roles, lines of authority, and communication.
- Emergency recognition and prevention.
- Safe distances and places of refuge.
- Evacuation routes and procedures.
- Decontamination procedures.
- Emergency medical treatment and first aid.
- Emergency alerting and response procedures.
- Critique of response and follow-up.
- Emergency personal protective equipment (PPE) and equipment.

2.0 PRE-EMERGENCY PLANNING

This Site has been evaluated for potential emergency occurrences, based on site hazards, the required work tasks, the site topography, and prevailing weather conditions. The results of that evaluation indicate the potential for the following site emergencies to occur at the locations indicated.

Type of Emergency:

1. Medical, due to physical injury
2. Fire

Source of Emergency:

1. Slip/trip/fall
2. Fire

Location of Source:

Non-specific

APPENDIX A: EMERGENCY RESPONSE PLAN

3.0 ON-SITE EMERGENCY RESPONSE EQUIPMENT

Emergency procedures may require specialized equipment to facilitate worker rescue, contamination control and reduction, or post-emergency clean up. Emergency response equipment available on the Site is listed below. The equipment inventory and storage locations are based on the potential emergencies described above. This equipment inventory is designed to meet on-site emergency response needs and any specialized equipment needs that off-site responders might require because of the hazards at this Site but not ordinarily stocked.

Any additional personal protective equipment (PPE) required and stocked for emergency response is also listed in below. During an emergency, the Emergency Response Coordinator (ERC) is responsible for specifying the level of PPE required for emergency response. At a minimum, PPE used by emergency responders will comply with Section 7.0, Personal Protective Equipment, of this HASP. Emergency response equipment is inspected at regular intervals and maintained in good working order. The equipment inventory is replenished as necessary to maintain response capabilities.

Emergency Equipment	Quantity	Location
Spill Response Kit	1	Site Vehicle
First Aid Kit	1	Site Vehicle
Chemical Fire Extinguisher	2 (minimum)	All heavy equipment and Site Vehicle

Emergency PPE	Quantity	Location
Full-face respirator	1 for each worker	Site Vehicle
Chemical-resistant suits	4 (minimum)	Site Vehicle

4.0 EMERGENCY PLANNING MAPS

An area-specific map of the Site will be developed on a daily basis during performance of field activities. The map will be marked to identify critical on-site emergency planning information, including: emergency evacuation routes, a place of refuge, an assembly point, and the locations of key site emergency equipment. Site zone boundaries will be shown to alert responders to known areas of contamination. There are no major topographical features; however, the direction of prevailing winds/weather conditions that could affect emergency response planning are also marked on the map. The map will be posted at site-designated place of refuge and inside the Benchmark personnel field vehicle.

5.0 EMERGENCY CONTACTS

The following identifies the emergency contacts for this ERP.

Emergency Telephone Numbers:

Project Manager: *Thomas H. Forbes*

Work: (716) 856-0599

Mobile: (716) 864-1730

Corporate Health and Safety Director: *Thomas H. Forbes*

Work: (716) 856-0599

Mobile: (716) 864-1730

Site Safety and Health Officer (SSHO): *Richard L. Dubisz*

Work: (716) 856-0599

Mobile: (716) 998-4334

Alternate SSHO: *Thomas Behrendt*

Work: (716) 856-0599

Mobile: (716) 818-8358

BUFFALO GENERAL HOSPITAL:	(716)859-5600
FIRE	911
AMBULANCE:	911
BUFFALO POLICE:	911
STATE EMERGENCY RESPONSE HOTLINE:	(800) 457-7362
NATIONAL RESPONSE HOTLINE:	(800) 424-8802
NYSDOH:	(716) 847-4385
NYSDEC:	(716) 851-7220
NYSDEC 24-HOUR SPILL HOTLINE:	(800) 457-7252

The Site location is:

295 Maryland Street

Buffalo, New York 14201

Site Phone Number: (Insert Cell Phone or Field Trailer): _____

6.0 EMERGENCY ALERTING & EVACUATION

Internal emergency communication systems are used to alert workers to danger, convey safety information, and maintain site control. Any effective system can be employed. Two-way radio headsets or field telephones are often used when work teams are far from the command post. Hand signals and air-horn blasts are also commonly used. Every system must have a backup. It shall be the responsibility of each contractor's SSHO to ensure an adequate method of internal communication is understood by all personnel entering the site. Unless all personnel are otherwise informed, the following signals shall be used.

- 1) Emergency signals by portable air horn, siren, or whistle: two short blasts, personal injury; continuous blast, emergency requiring site evacuation.
- 2) Visual signals: hand gripping throat, out of air/cannot breathe; hands on top of head, need assistance; thumbs up, affirmative/ everything is OK; thumbs down, no/negative; grip partner's wrist or waist, leave area immediately.

If evacuation notice is given, site workers leave the worksite with their respective buddies, if possible, by way of the nearest exit. Emergency decontamination procedures detailed in Section 12.0 of the HASP are followed to the extent practical without compromising the safety and health of site personnel. The evacuation routes and assembly area will be determined by conditions at the time of the evacuation based on wind direction, the location of the hazard source, and other factors as determined by rehearsals and inputs from emergency response organizations. Wind direction indicators are located so that workers can determine a safe up wind or cross wind evacuation route and assembly area if not informed by the emergency response coordinator at the time the evacuation alarm sounds. Since work conditions and work zones within the site may be changing on daily basis, it shall be the responsibility of the construction Site Health and Safety Officer to review evacuation routes and procedures as necessary and to inform all Benchmark workers of any changes.

Personnel exiting the site will gather at a designated assembly point. To determine that everyone has successfully exited the site, personnel will be accounted for at the assembly site. If any worker cannot be accounted for, notification is given to the SSHO (**Thomas Behrendt** or **Richard Dubisz**) so that appropriate action can be initiated. Contractors and subcontractors on this site have coordinated their emergency response plans to ensure that

APPENDIX A: EMERGENCY RESPONSE PLAN

these plans are compatible and that source(s) of potential emergencies are recognized, alarm systems are clearly understood, and evacuation routes are accessible to all personnel relying upon them.

7.0 EXTREME WEATHER CONDITIONS

In the event of adverse weather conditions, the SSHO in conjunction with the Contractor's SSHO will determine if engineering operations can continue without sacrificing the health and safety of site personnel. Items to be considered prior to determining if work should continue include but are not limited to:

- Potential for heat/cold stress.
- Weather-related construction hazards (i.e., flooding or wet conditions producing undermining of structures or sheeting, high wind threats, etc).
- Limited visibility.
- Potential for electrical storms.
- Limited site access/egress (e.g., due to heavy snow)

8.0 EMERGENCY MEDICAL TREATMENT & FIRST AID

Personnel Exposure:

The following general guidelines will be employed in instances where health impacts threaten to occur acute exposure is realized:

- Skin Contact: Use copious amounts of soap and water. Wash/rinse affected area for at least 15 minutes. Decontaminate and provide medical attention. Eyewash stations will be provided on site. If necessary, transport to Mercy Hospital.
- Inhalation: Move to fresh air and, if necessary, transport to Mercy Hospital.
- Ingestion: Decontaminate and transport to Mercy Hospital.

Personal Injury:

Minor first-aid will be applied on-site as deemed necessary. In the event of a life threatening injury, the individual should be transported to Mercy Hospital via ambulance. The SSHO will supply available chemical specific information to appropriate medical personnel as requested.

First aid kits will conform to Red Cross and other applicable good health standards, and shall consist of a weatherproof container with individually sealed packages for each type of item. First aid kits will be fully equipped before being sent out on each job and will be checked weekly by the SSHO to ensure that the expended items are replaced.

Directions to Buffalo General Hospital (see Figure A-1):

The following directions describe the best route to Buffalo General Hospital:

- From the intersection of Maryland Street and West Avenue, proceed northeast (toward West Tupper Street).
- Turn right onto Cottage Street (street name changes to Virginia Street).
- Turn left onto Main Street.
- Turn right on Goodrich Street. Buffalo General Hospital will be on right hand side. Follow signs to emergency room (ER).

9.0 EMERGENCY RESPONSE CRITIQUE & RECORD KEEPING

Following an emergency, the SSHO and Project Manager shall review the effectiveness of this Emergency Response Plan (ERP) in addressing notification, control and evacuation requirements. Updates and modifications to this ERP shall be made accordingly. It shall be the responsibility of each contractor to establish and assure adequate records of the following:

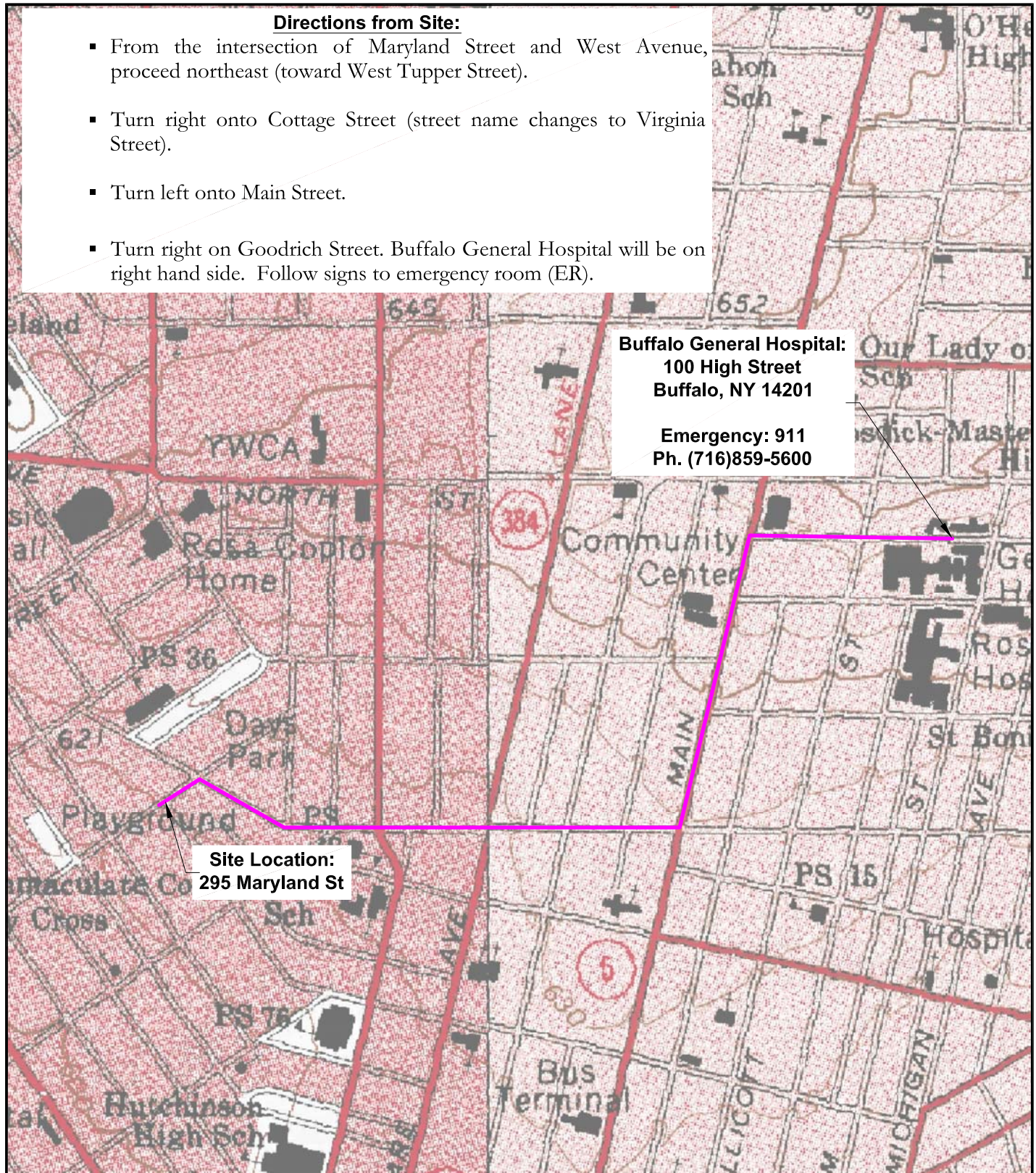
- Occupational injuries and illnesses.
- Accident investigations.
- Reports to insurance carrier or State compensation agencies.
- Reports required by the client.
- Records and reports required by local, state, federal and/or international agencies.
- Property or equipment damage.
- Third party injury or damage claims.
- Environmental testing logs.
- Explosive and hazardous substances inventories and records.
- Records of inspections and citations.
- Safety training.

10.0 EMERGENCY RESPONSE TRAINING

All persons who enter the worksite, including visitors, shall receive a site-specific briefing about anticipated emergency situations and the emergency procedures by the SSHO. Where this site relies on off-site organizations for emergency response, the training of personnel in those off-site organizations has been evaluated and is deemed adequate for response to this site.

FIGURES

FIGURE A-1



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

HOSPITAL ROUTE MAP

REMEDIAL ACTION WORK PLAN

295 MARYLAND STREET SITE
295 MARYLAND STREET
BUFFALO, NEW YORK
PREPARED FOR
295 MARYLAND, LLC

PROJECT NO.: 0222-001-100

DATE: JUNE 2011

DRAFTED BY: JCT

APPENDIX B

HOT WORK PERMIT FORM

PART 1 - INFORMATION

Issue Date:

Date Work to be Performed: Start:

Finish (permit terminated):

Performed By:

Work Area:

Object to be Worked On:

PART 2 - APPROVAL

(for 1, 2 or 3: mark Yes, No or NA)*

Will working be on or in:

Finish (permit terminated):

- | | | |
|--|-----|----|
| 1. Metal partition, wall, ceiling covered by combustible material? | yes | no |
| 2. Pipes, in contact with combustible material? | yes | no |
| 3. Explosive area? | yes | no |

* = If any of these conditions exist (marked "yes"), a permit will not be issued without being reviewed and approved by Thomas H. Forbes (Corporate Health and Safety Director). Required Signature below.

PART 3 - REQUIRED CONDITIONS**

(Check all conditions that must be met)

PROTECTIVE ACTION		PROTECTIVE EQUIPMENT	
<input type="checkbox"/>	Specific Risk Assessment Required	<input type="checkbox"/>	Goggles/visor/welding screen
<input type="checkbox"/>	Fire or spark barrier	<input type="checkbox"/>	Apron/fireproof clothing
<input type="checkbox"/>	Cover hot surfaces	<input type="checkbox"/>	Welding gloves/gauntlets/other:
<input type="checkbox"/>	Move movable fire hazards, specifically	<input type="checkbox"/>	Wellintons/Knee pads
<input type="checkbox"/>	Erect screen on barrier	<input type="checkbox"/>	Ear protection: Ear muffs/Ear plugs
<input type="checkbox"/>	Restrict Access	<input type="checkbox"/>	B.A.: SCBA/Long Breather
<input type="checkbox"/>	Wet the ground	<input type="checkbox"/>	Respirator: Type:
<input type="checkbox"/>	Ensure adequate ventilation	<input type="checkbox"/>	Cartridge:
<input type="checkbox"/>	Provide adequate supports	<input type="checkbox"/>	Local Exhaust Ventilation
<input type="checkbox"/>	Cover exposed drain/floor or wall cracks	<input type="checkbox"/>	Extinguisher/Fire blanket
<input type="checkbox"/>	Fire watch (must remain on duty during duration of permit)	<input type="checkbox"/>	Personal flammable gas monitor
<input type="checkbox"/>	Issue additional permit(s):	<input type="checkbox"/>	

Other precautions:

** Permit will not be issued until these conditions are met.

SIGNATURES

Originating Employee:

Date:

Project Manager:

Date:

Part 2 Approval:

Date:

APPENDIX C

NYSDOH GENERIC COMMUNITY AIR MONITORING PLAN

Appendix 1A

New York State Department of Health Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B

Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM₁₀) with the following minimum performance standards:
 - (a) Objects to be measured: Dust, mists or aerosols;
 - (b) Measurement Ranges: 0.001 to 400 mg/m³ (1 to 400,000 :ug/m³);
 - (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m³ for one second averaging; and +/- 1.5 g/m³ for sixty second averaging;
 - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
 - (e) Resolution: 0.1% of reading or 1g/m³, whichever is larger;
 - (f) Particle Size Range of Maximum Response: 0.1-10;
 - (g) Total Number of Data Points in Memory: 10,000;
 - (h) Logged Data: Each data point with average concentration, time/date and data point number
 - (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
 - (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
 - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
 - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
 - (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at 150 ug/m³ (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m³, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m³ above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m³ continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM₁₀ at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

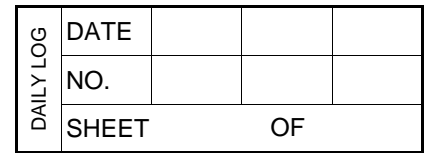
- (a) Applying water on haul roads;
- (b) Wetting equipment and excavation faces;
- (c) Spraying water on buckets during excavation and dumping;
- (d) Hauling materials in properly tarped or watertight containers;
- (e) Restricting vehicle speeds to 10 mph;
- (f) Covering excavated areas and material after excavation activity ceases; and
- (g) Reducing the excavation size and/or number of excavations.

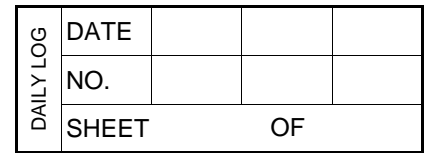
Experience has shown that the chance of exceeding the 150ug/m³ action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

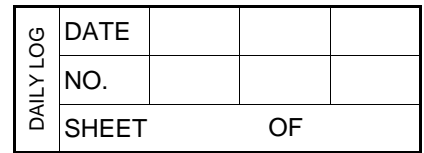
8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

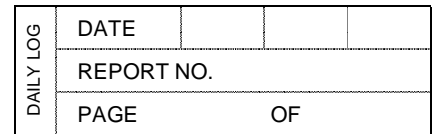
APPENDIX H

PROJECT DOCUMENTATION FORMS

[illegible]

[illegible]

[illegible]



PROBLEM IDENTIFICATION REPORT

WEATHER CONDITIONS:

Ambient Air Temp. - A.M.:

Ambient Air Temp. - P.M.:

Wind Direction:

Wind Speed:

Precipitation:

Problem Description:

Problem Location (reference test location, sketch on back of form as appropriate):

Problem Causes:

Suggested Corrective Measures or Variances:

Linked to Corrective Measures Report No. _____ or Variance Log No. _____

Approvals (initial):

CQA Engineer:

Project Manager:

Signed:

CQA Representative

Date: _____

CORRECTIVE MEASURES REPORT

Project: _____

Job No: _____

WEATHER CONDITIONS:

Location: _____

Ambient Air Temp. - A.M.: _____

CQA Monitor(s): _____

Ambient Air Temp. - P.M.: _____

Client: _____

Wind Direction: _____

Contractor: _____

Wind Speed: _____

Contractor's Supervisor: _____

Precipitation: _____

Corrective Measures Undertaken (reference Problem Identification Report No.)

Retesting Location:

Suggested Method of Minimizing Re-Occurrence:

Approvals (initial):

CQA Engineer: _____

Project Manager: _____

Signed:

CQA Representative