

291 METROPOLITAN AVENUE
BROOKLYN, NEW YORK

Remedial Investigation Report

Prepared for:

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REMEDIAL INVESTIGATION REPORT

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LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
CAMP	Community Air Monitoring Plan
COC	Contaminant of Concern
CPP	Citizen Participation Plan
CSM	Conceptual Site Model
DER-10	New York State Department of Environmental Conservation Technical Guide 10
FID	Flame Ionization Detector
GPS	Global Positioning System
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
IRM	Interim Remedial Measure
NAPL	Non-aqueous Phase Liquid
NYC BCP	New York City Brownfield Cleanup Program
NYC DOHMH	New York City Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
NYS DOH ELAP	New York State Department of Health Environmental Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PID	Photoionization Detector
QEP	Qualified Environmental Professional
RI	Remedial Investigation
RIR	Remedial Investigation Report
SCO	Soil Cleanup Objective
SPEED	Searchable Property Environmental Electronic Database

CERTIFICATION

I, Kristen DiScenza, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation of the Remedial Investigation for the Redevelopment Project located at 291 Metropolitan Avenue, Brooklyn, NY. I am responsible for the content of this Remedial Investigation Report (RIR), have reviewed its contents and certify that this RIR is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

Qualified Environmental Professional

Date

Signature

EXECUTIVE SUMMARY

The Remedial Investigation Report (RIR) provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy pursuant to RCNY§ 43-1407(f). The remedial investigation (RI) described in this document is consistent with applicable guidance.

Site Location and Current Usage

The Site is located at 291 Metropolitan Avenue in the Williamsburg section of Brooklyn, New York, and is identified as Block 2353 and Lot 13 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 6,825-square feet and is bounded by N. 4th Street to the north, Metropolitan Avenue to the south, Roebling Street to the east, and a commercial building to the west. A map of the site boundary is shown in Figure 2. Currently, the Site is vacant and contains a one story building with three service bays, formerly used for automotive repair. The remainder of the property is a paved parking area.

Summary of Proposed Redevelopment Plan

The proposed future use of the Site will be mixed-use commercial and residential. The cellar level will be used for retail, storage, utilities, and accessory residential space. The residential lobby will be on the ground level. A ramp from North 4th Street will provide access from grade level to the first floor for the first floor parking garage. The second through fifth floors will consist of apartments.

The new building and cellar will occupy the entire footprint of the lot. Since the top of the 4 inch thick concrete slab of the cellar level will be located approximately 10 feet 2 inches below sidewalk grade and the slab will be installed on top of 6 inches of crushed stone, the approximate excavation depth for the entire Site will be 11 feet. Assuming excavation of the entire Site (6,825 ft²) to a depth of 11ft, a total of approximately 2,780 cubic yards (4,170 tons) will be excavated.

Summary of Past Uses of Site and Areas of Concern

In 1905, the property was developed with commercial buildings along Metropolitan Avenue and residential dwellings along N 4th Street. Sometime between 1916 and 1942, the Site was



redeveloped into a gasoline filling station with commercial and residential buildings along the northeastern portion of the property. Between 1942 and 1951 the residential building was converted into a commercial facility. The gasoline filling station ceased operations between 1996 and 2001 and operated as an automotive repair facility, and has remained in operation since.

The AOCs identified for this Site include:

1. Historic fill layer is present at the Site from grade to depths as great as 5 feet below grade.
2. Petroleum contaminated soil and groundwater is present onsite on the southern portion of the property, adjacent to former UST and dispenser locations.

Summary of the Work Performed under the Remedial Investigation

291 Metropolitan Realty LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed five soil borings across the entire project Site, and collected fifteen soil samples and one duplicate soil sample for chemical analysis from the soil borings to evaluate soil quality;
3. Installed one groundwater monitoring well (MW-7), in the rear of the service station building and collected one groundwater sample for chemical analysis to evaluate groundwater quality;
4. Collected five groundwater samples from five existing on-Site monitoring wells for chemical analysis to further evaluate groundwater quality;
5. Installed four soil vapor probes at the Site and collected four soil vapor samples for chemical analysis; and
6. Installed four sub-slab vapor implants within the service station building and collected three sub-slab soil vapor samples for chemical analysis.

Summary of Environmental Findings

1. Elevation of the property is approximately 27 feet.
2. Depth to groundwater ranges from approximately 18 to 20 feet at the Site.



3. Groundwater flow is generally from northeast to southwest beneath the Site.
4. Depth to bedrock is at the Site is greater than 100 feet.
5. The stratigraphy of the Site, from the surface down, consists of approximately five feet of historic fill underlain by brown sands and sandy clays.
6. Soil/fill samples collected during the RI showed no pesticides or PCBs at detectable concentrations. Several petroleum-related VOCs were detected in three shallow and four deep soil samples. However, Unrestricted Use SCOs were only exceeded in the shallow sample collected from B2 and the deep sample collected from B5. Both borings B2 and B5 were located adjacent to the former UST /dispenser areas. Unrestricted Use SCO exceedances were for 1,2,4-trimethylbenzene (max 32 ppm), 1,3,5-trimethylbenzene (max 11 ppm), ethylbenzene (2.2 ppm), and xylenes (max 16 ppm), with maximum total BTEX concentrations of 18.2 ppm. No chlorinated VOCs were detected in any of the soil samples collected. Several SVOCs were detected above Restricted Residential SCOs in three of the five shallow soil samples collected from the historic fill layer present on the southern portion of the property. These SVOCs, all polycyclic aromatic hydrocarbons (PAHs), included benzo(a)anthracene (max 31 ppm), benzo(a)pyrene (max 25 ppm), benzo(b)fluoranthene (max 32 ppm), benzo(k)fluorathene (max 11 ppm), dibenz(a,h)anthracene (max 29 ppm), indeno(1,2,3-cd)pyrene (max 9.6 ppm), and naphthalene (max 14 ppm). Five metals (arsenic, copper, lead, mercury and zinc) exceeded Unrestricted Use SCOs in four of the five shallow samples collected from the historic fill layer present on-Site. Three of these metals (arsenic at max of 22.7 ppm, Lead at max of 561 ppm, and mercury at max of 1.57 ppm) were reported within two of the shallow samples above Restricted Residential SCOs. Overall, the findings were consistent with past use of the Site and observations for other historic fill sites.
7. No pesticides or PCBs were detected in any of the groundwater samples collected at the Site. Petroleum VOCs were detected in all six groundwater samples with the highest concentrations detected in monitoring wells MW-2 (15,488 µg/l) and MW-6 (7,212 µg/l), which are located adjacent to and within the service station building. Twelve petroleum VOCs, including 1,2,4-trimethylbenzene (max 1,800 µg/l), 1,3,5-trimethylbenzene (max 420 µg/l), benzene (max 350 µg/l), ethylbenzene (max 1,500 µg/l), xylenes (max 8,900

µg/l), MTBE (max 360 µg/l), and toluene (max 3,400 µg/l) were detected above GQs. No chlorinated VOCs were detected in any groundwater sample. SVOCs were detected above NYSDEC GQs in three of the four groundwater samples collected for analysis, with the highest concentrations detected in MW-2 (340 µg/l of naphthalene) and MW-8 (benzo(a)anthracene at 8 µg/l, chrysene at 7.6 µg/l, indeno(1,2,3-cd)pyrene at 3.8 µg/l with other benzo compounds also exceeding GQs). The dissolved concentrations of the metals Iron, Magnesium, Manganese and Sodium were detected above NYSDEC GQs in groundwater samples. Overall, groundwater results are consistent with residual petroleum impacts from filling station operations.

8. Soil vapor and sub-slab soil gas samples collected during the RI showed petroleum and chlorinated VOCs at low concentrations. BTEX concentrations were generally low at a maximum of 21.29 µg/m³ for soil vapor and 31.07 µg/m³ for sub-slab. PCE was detected in all four soil vapor samples and all three sub-slab soil gas samples at a concentration ranging from 4.13 to 37.8 µg/m³. TCE was detected in one of the four soil gas samples (0.537 µg/m³) and one of the three sub-slab soil vapors (4.89 µg/m³). These PCE and TCE concentrations are below the monitoring level ranges established within the State DOH soil vapor guidance matrix.

REMEDIAL INVESTIGATION REPORT

1.0 SITE BACKGROUND

291 Metropolitan Realty LLC has enrolled in the New York City Volunteer Cleanup Program (NYC VCP) to investigate and remediate a 0.16-acre Site located at 291 Metropolitan Avenue in Williamsburg section of Brooklyn, New York. Residential use is proposed for the property. The RI work was performed on January 4, 2013. This RIR summarizes the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment consistent with the use of the property pursuant to RCNY§ 43-1407(f).

1.1 Site Location and Current Usage

The Site is located at 291 Metropolitan Avenue in the Williamsburg section of Brooklyn, New York, and is identified as Block 2353 and Lot 13 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 6,825-square feet and is bounded by N. 4th Street to the north, Metropolitan Avenue to the south, Roebling Street to the east, and a commercial building to the west. A map of the Site boundary is shown in Figure 2. Currently, the Site is vacant and contains a one story building with three bays, formerly used for automotive repair. The remainder of the property is a paved parking area.

1.2 Proposed Redevelopment Plan

The proposed future use of the Site will consist of a new 5-story mixed use (commercial and residential) building with a full cellar. The cellar level will be used for retail, storage, utilities, and accessory residential space. The residential lobby will be on the ground level. A ramp from North 4th Street will provide access from grade level to the first floor for the first floor parking garage. The second through fifth floors will consist of apartments.

The new building and cellar will occupy the entire footprint of the lot. Since the top of the 4 inch thick concrete slab of the cellar level will be located approximately 10 feet 2 inches below sidewalk grade and the slab will be installed on top of 6 inches of crushed stone, the approximate

excavation depth for the entire Site will be 11 feet. Assuming excavation of the entire Site (6,825 ft²) to a depth of 11ft, a total of approximately 2,780 cubic yards (4,170 tons) will be excavated.

Layout of the proposed Site development is presented in Figure 3. The current zoning designation is M1-2/R6A. The proposed use is consistent with existing zoning for the property.

1.3 Description of Surrounding Property

The area surrounding the Site consists of a mix of residential and industrial properties. Figure 4 shows the surrounding land usage of the adjacent properties listed below as well as additional properties located up to 500 feet away from the Site. No hospitals or daycare facilities are located within a 250 feet radius of the Site. However, one school, PS 17 - Henry D Woodworth, is located within 100 feet of the Site. The school is described below.

PS 017 Henry D Woodworth - 205 N 5th Street, Brooklyn, NY - Located on the north side of 4th Street, between Driggs Avenue and Roebling Street (approximately 100 feet north of Site).

Surrounding Property Usage

Direction	Property Description
North – North side of N 5th Street	<u>Block 2345, Lot 1</u> (205 N 4th Street) – Public School PS017 Henry D Woodworth
South – South side of Metropolitan Avenue	<u>Block 2367, Lots 19 and 21</u> (298 and 302 Metropolitan Avenue) – Both lots are developed. Lot 19 is a 4-story apartment building and Lot 21 is a mixed residential and commercial building.
East – Adjacent property	<u>Block 2354, Lot 26</u> (Ascenzi Square) – Undeveloped, uncapped 32ft x 45ft parcel of recreation space.
West – Adjacent property	<u>Block 2356, Lot 26</u> (285 Metropolitan Avenue) – Developed with a 2-story commercial building.

2.0 SITE HISTORY

2.1 Past Uses and Ownership

Based upon historic Sanborn maps (Attachment A), in 1905, the property was developed with commercial buildings along Metropolitan Avenue and residential dwellings along N 4th Street. Sometime between 1916 and 1942, the Site was redeveloped into a gasoline filling station with commercial and residential buildings along the northeastern portion of the property. Between 1942 and 1951, the residential building was converted into a commercial facility. The gasoline filling station ceased operations between 1996 and 2001, and operated as an automotive repair facility, and has remained in operation since.

2.2 Previous Investigations

A subsurface investigation was conducted in 2006 by Advanced Site Restoration (ASR). NYSDEC Spill Number 06-07903 was generated as a result of soil and groundwater contamination. No additional investigations or remediation was conducted until 2010. P.W. Grosser Consulting (PWGC) completed a subsurface investigation in July and August 2010, which indicated that no soil impacts were evident in the unsaturated zone above NYSDEC Standards, however MTBE in groundwater and LNAPL were discovered in the vicinity of the UST's. Additional investigation and remediation including UST removal, Vacuum-Enhanced Fluid Recovery, and chemical oxidation/enhanced bioremediation was recommended in a November 2010 Remedial Action Plan submitted by PWGC.

Several underground storage tanks and a total of approximately 470 tons of contaminated soil was removed in 2011. Additional investigations were completed by Pressly & Associates, Inc. in 2012, resulting in the installation of groundwater monitoring wells and an Air Sparge/Soil Vapor Extraction remediation system. In August 2012, the NYSDEC requested quarterly monitoring of the remedial system and monitoring well network and confirmatory soil and groundwater sampling upon completion of remediation.

Copies of previous investigation reports are presented in Attachment A.

2.3 Site Inspection

Mr. Charles Sosik of EBC performed the site inspection on December 15, 2012, beginning at approximately 8:00 am. The reconnaissance included a visual inspection of the Site, the sidewalk immediately in front of the Site, and the exterior of adjacent properties. At the time of the inspection, the Site consisted of a vacant one story brick automotive service building with three service bay doors. The parking area located in front of the building was paved with asphalt. Four monitoring wells were located within the asphalt paved parking area and two monitoring wells were observed within the service station building. Air Sparge/Soil Vapor Extraction equipment was observed within the service station building, but the system was not operating at the time of the Site inspection. Evidence of a former UST field was observed in front of the service station building.

2.4 Areas of Concern

The AOCs identified for this Site include:

1. Historic fill layer is present at the Site from grade to depths as great as 5 feet below grade.
2. Petroleum contaminated soil and groundwater is present on-Site on the southern portion of the property, adjacent to the former UST and dispenser locations.

3.0 PROJECT MANAGEMENT

3.1 Project Organization

The Qualified Environmental Profession (QEP) responsible for preparation of this RIR is Kristen DiScenza.

3.2 Health and Safety

All work described in this RIR was performed in full compliance with applicable laws and regulations, including Site and OSHA worker safety requirements and HAZWOPER requirements.

3.3 Materials Management

All material encountered during the RI was managed in accordance with applicable laws and regulations.

4.0 REMEDIAL INVESTIGATION ACTIVITIES

291 Metropolitan realty LLC performed the following scope of work:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed five soil borings across the entire project Site, and collected fifteen soil samples and one duplicate soil sample for chemical analysis from the soil borings to evaluate soil quality;
3. Installed one groundwater monitoring well (MW-7), in the rear of the service station building and collected one groundwater sample for chemical analysis to evaluate groundwater quality;
4. Collected five groundwater samples from five existing on-Site monitoring wells for chemical analysis to further evaluate groundwater quality;
5. Installed four soil vapor probes at the Site and collected four soil vapor samples for chemical analysis; and
6. Installed four sub-slab vapor implants within the service station building and collected three sub-slab soil vapor samples for chemical analysis.

4.1 Geophysical Investigation

A geophysical investigation was not performed as a part of this assessment.

4.2 Borings and Monitoring Wells

Drilling and Soil Logging

On January 4, 2013, a total of five soil borings (B1-B5) were performed across the Site. The five soil boring locations were chosen to gain representative soil and groundwater quality information across the areas of the Site accessible with a drill rig. For each of the five borings, soil samples were collected continuously from grade to a final depth of 20 feet below grade using a five-foot steel macro-core sampler with acetate liners and Geoprobe direct-push equipment. One soil sample was retained from each soil boring representing the interval 0 to 2 feet below grade, one soil sample was retained from each soil boring representing the interval 10 to 12 feet, and one soil sample was retained from each soil boring representing either the interval 15 to 17 feet, 16 to 18 feet, or 18 to 20 feet. Soil boring details are provided in Table 1. Boring logs were prepared

by a Qualified Environmental Professional and are attached in Attachment B. A map showing the location of soil borings and monitor wells is shown in Figure 5.

Groundwater Monitoring Well Construction

A temporary 1-inch diameter PVC monitoring well with 10 feet of 0.010 slot screen was installed at boring location B4 set to intersect the water table. Since groundwater was encountered at approximately 18-20 feet below grade, the monitoring well was installed to a depth of 25 feet. Monitoring well sampling details are provided in Table 1. Monitoring well locations are shown in Figure 5.

Survey

Soil borings and wells were located to the nearest 0.10 foot with respect to two or more permanent site features.

Water Level Measurement

Approximate groundwater level measurements were collected using a Solinst oil/water interface meter to ensure the surface of the water table was within the screened section of the monitoring well. No free product was observed within the any of the monitoring wells. Water level data is included in Table 1.

4.3 Sample Collection and Chemical Analysis

Sampling performed as part of the field investigation was conducted for all Areas of Concern and also considered other means for bias of sampling based on professional judgment, area history, discolored soil, stressed vegetation, drainage patterns, field instrument measurements, odor, or other field indicators. All media including soil, groundwater and soil vapor have been sampled and evaluated in the RIR. Discrete (grab) samples have been used for final delineation of the nature and extent of contamination and to determine the impact of contaminants on public health and the environment. The sampling performed and presented in this RIR provides sufficient basis for evaluation of remedial action alternatives, establishment of a qualitative human health exposure assessment, and selection of a final remedy.

Soil Sampling

Fifteen soil samples and one duplicate soil sample were collected for chemical analysis during this RI. Data on soil sample collection for chemical analyses, including dates of collection and sample depths, is reported in Tables 2 through 5. Figure 5 shows the location of samples collected in this investigation. Laboratories and analytical methods are shown below.

The fifteen soil samples were collected in pre-cleaned, laboratory supplied glassware, stored in a cooler with ice and submitted for analysis to Phoenix Environmental Laboratories (Phoenix) of 587 East Middle Turnpike, Manchester, CT 06040, a New York State ELAP certified environmental laboratory (ELAP Certification No. 11301). The ten soil samples collected from the depth intervals 0 to 2 feet and 10 to 12 feet below grade were analyzed for the presence of volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, pesticides/PCBs by EPA Methods 8081/8082 and target analyte list (TAL) metals. The five soil samples retained from the groundwater interface (or highest olefactory evidence of contamination) were analyzed for the presence of VOCs by EPA Method 8260 (CP51 List) and SVOCs by EPA Method 8270 (CP51 List).

Groundwater Sampling

Six groundwater samples and one duplicate were collected for chemical analysis during this RI. Five of the six groundwater samples were collected from existing monitoring wells (MW1, MW2, MW3, MW6, and SVE1). The sixth groundwater sample was collected from a one-inch diameter PVC well installed 5-feet below the water table interface (set at approximately 25 feet below grade). A groundwater sample was then collected from the newly installed monitoring well and each of the five existing monitoring wells (MW-1, MW-2, MW-3, MW-6 and SVE-1) utilizing dedicated polyethylene tubing and a peristaltic pump. Groundwater samples were collected in pre-cleaned, laboratory supplied glassware, stored in a cooler with ice and submitted to Phoenix for analysis of VOCs by EPA Method 8260 for all samples, and SVOCs by EPA Method 8270, pesticides/PCBs by EPA Methods 8081/8082 and TAL metals for select samples (MW-1, MW-2, MW-3 and MW-7). Groundwater sample collection data is reported in Tables 6 through 10. Sampling logs with information on purging and sampling of groundwater monitor

wells is included in Attachment C. Figure 5 shows the location of groundwater sampling. Laboratories and analytical methods are shown below.

Soil Vapor Sampling

Four soil vapor probes were installed across the Site and four soil vapor samples were collected for chemical analysis during this RI. In addition, four sub-slab soil vapor implants were installed immediately below the concrete slab of the existing automotive repair facility, and three sub-slab soil vapor samples were collected for chemical analysis. A sample from sub-slab point SS-2 was not obtained due to a faulty regulator. Soil vapor sampling locations are shown in Figure 5. Soil vapor sample collection data is reported in Table 10. Soil vapor sampling logs are included in Attachment D. Methodologies used for soil vapor assessment conform to the *NYS DOH Final Guidance on Soil Vapor Intrusion, October 2006*.

The four soil vapor implants were installed using Geoprobe™ equipment and tooling. The approximate location of each of the soil vapor implants is shown on Figure 5. The vapor implants that were installed were the Geoprobe™ Model AT86 series, which are constructed of a 6-inch length of double woven stainless steel wire. The implants were installed to a depth of twelve feet below grade at all locations. Each implant was attached to ¼ inch polyethylene tubing which extended approximately 18 inches beyond that needed to reach the surface. The tubing was capped with a ¼ inch plastic end to prevent the infiltration of foreign particles into the tube. Coarse sand was placed around the vapor implant to a height of approximately 1 foot above the bottom of the implant. The remainder of the borehole was sealed with a bentonite slurry to the surface.

The four sub-slab soil vapor implants were installed by drilling a 1/2 inch hole through the concrete slab with a handheld drill and then inserting 1/4 inch polyethylene tubing to no more than 2 inches below the base of the slab. The tubing was then sealed at the surface with hydrated granular bentonite.

Soil vapor sampling for the four soil gas implants and four sub-slab implants installed on January 4, 2013, was conducted on January 25, 2013. Prior to sampling, each sampling location was tested to ensure a proper surface seal had been obtained. In accordance with NYSDOH guidance

(NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, February 2005), a tracer gas (helium) was used as a quality assurance/quality control device to verify the integrity of the sampling point seal prior to collecting the samples. Prior to testing and collecting samples, the surface immediately surrounding the polyethylene tubing of the vapor implant was sealed using a 1 foot ft by 1 ft square sheet of 2 mil HDPE plastic firmly adhered to a wetted layer of granular bentonite. The seal was then tested by enriching the air space above the seal with a tracer gas (helium) while continuously monitoring air drawn from the implant with a helium detector (Dielectric Model MGD-2002, Multi-Gas Detector) for a minimum of 15 minutes. The tracer gas test procedure was employed at all of the soil vapor implant and sub-slab implant sampling locations. No surface seal leaks were observed at any of the locations.

Following verification that the surface seal was tight, one to three volumes (i.e., the volume of the sample probe and tube) of air was purged from the implant using a calibrated vacuum pump. After purging, a 6-liter Summa® canister, fitted with a 2-hour flow regulator, was attached to the surface tube of each of the eight vapor implants. Prior to initiating sample collection, sample identification, canister number, date and start time were recorded on tags attached to each canister and in a bound field note book. Sampling then proceeded by fully opening the flow control valve on each canister in turn. Immediately after opening the flow control valve on a canister, the initial vacuum (inches of mercury) was recorded in the field book and on the sample tag. When the vacuum level in the canister was between 5 and 8 inches of mercury (approx 2 hours), the flow controller valve was closed, and the final vacuum recorded in the field notebook and on the sample tag.

The soil gas Sample identification, date, start time, start vacuum, end time and end vacuum were recorded on tags attached to each canister and on a sample log sheet (Attachment E). Samples were submitted to Phoenix for laboratory analysis of VOCs EPA Method TO-15.

Chemical Analysis

Chemical analytical work presented in this RIR has been performed in the following manner:

Factor	Description
Quality Assurance Officer	The chemical analytical quality assurance is directed by Phoenix

	Environmental Laboratories
Chemical Analytical Laboratory	Chemical analytical laboratory(s) used in the RI is NYS ELAP certified and was Phoenix Environmental Laboratories
Chemical Analytical Methods	<p>Soil analytical methods:</p> <ul style="list-style-type: none"> • TAL Metals by EPA Method 6010C (rev. 2007); • VOCs by EPA Method 8260C (rev. 2006); • SVOCs by EPA Method 8270D (rev. 2007); • Pesticides by EPA Method 8081B (rev. 2000); • PCBs by EPA Method 8082A (rev. 2000); <p>Groundwater analytical methods:</p> <ul style="list-style-type: none"> • TAL Metals by EPA Method 6010C (rev. 2007); • VOCs by EPA Method 8260C (rev. 2006); • SVOCs by EPA Method 8270D (rev. 2007); • Pesticides by EPA Method 8081B (rev. 2000); • PCBs by EPA Method 8082A (rev. 2000); <p>Soil vapor analytical methods:</p> <ul style="list-style-type: none"> • VOCs by TO-15 VOC parameters.

Results of Chemical Analyses

Laboratory data for soil, groundwater, soil vapor, and sub-slab soil vapor are summarized in Tables 2 through 11, respectively. Laboratory data deliverables for all samples evaluated in this RIR are provided in digital form in Attachment E.

5.0 ENVIRONMENTAL EVALUATION

5.1 Geological and Hydrogeological Conditions

Stratigraphy

Subsurface soil at the Site consisted of historic fill, which was primarily comprised of brick, concrete, wood and other debris in a brown silty-sand matrix. The layer of historic fill extended to a depth ranging from ground surface to depths as great as 5 feet below grade. Native soil consisting of a brown sands and sandy clays is present below the historic fill layer.

Hydrogeology

A table of water level data for all monitor wells is included in Table 12. The average depth to groundwater at the Site was approximately 17-19 feet. A map of groundwater level elevations with groundwater contours and inferred flow lines is shown in Figure 9. Groundwater flow is from northeast to southwest.

5.2 Soil Chemistry

Data collected during the RI is sufficient to delineate the vertical and horizontal distribution of contaminants in soil/fill at the Site. A summary table of data for chemical analyses performed on soil samples is included in Tables 2 through 5. Results were compared to NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) and Restricted Residential Soil Cleanup Objectives (RRSCOs) as presented in 6NYCRR Part 375-6.8 and CP51. A copy of the laboratory report is provided in Attachment E. Figure 6 shows the location and posts the values for soil/fill that exceeds UUSCOs and RRSCOs.

Soil/fill samples collected during the RI showed no pesticides or PCBs at detectable concentrations. Several petroleum-related VOCs were detected in three shallow and four deep soil samples. However, Unrestricted Use SCOs were only exceeded in the shallow sample collected from B2 and the deep sample collected from B5. Both borings B2 and B5 were located adjacent to the former UST /dispenser areas. Unrestricted Use SCO exceedances were for 1,2,4-trimethylbenzene (max 32 ppm), 1,3,5-trimethylbenzene (max 11 ppm), ethylbenzene (2.2 ppm), and xylenes (max 16 ppm), with maximum total BTEX concentrations of 18.2 ppm. No chlorinated VOCs were detected in any of the soil samples collected. Several SVOCs were

detected above Restricted Residential SCOs in three of the five shallow soil samples collected from the historic fill layer present on the southern portion of the property. These SVOCs, all polycyclic aromatic hydrocarbons (PAHs), included benzo(a)anthracene (max 31 ppm), benzo(a)pyrene (max 25 ppm), benzo(b)fluoranthene (max 32 ppm), benzo(k)fluoranthene (max 11 ppm), dibenz(a,h)anthracene (max 29 ppm), indeno(1,2,3-cd)pyrene (max 9.6 ppm), and naphthalene (max 14 ppm). Five metals (arsenic, copper, lead, mercury and zinc) exceeded Unrestricted Use SCOs in four of the five shallow samples collected from the historic fill layer present on-Site. Three of these metals (arsenic at max of 22.7 ppm, lead at max of 561 ppm, and mercury at max of 1.57 ppm) were reported within two of the shallow samples above Restricted Residential SCOs. Overall, the findings were consistent with past use of the Site and observations for other historic fill sites.

5.3 Groundwater Chemistry

Data collected during the RI is sufficient to delineate the distribution of contaminants in groundwater at the Site. A summary table of data for chemical analyses performed on groundwater samples is included in Tables 6 through 10. Figure 7 shows the location and posts the values for groundwater that exceed the New York State 6NYCRR Part 703.5 Class GA groundwater standards.

No pesticides or PCBs were detected in any of the groundwater samples collected at the Site. Petroleum VOCs were detected in all six groundwater samples with the highest concentrations detected in monitoring wells MW-2 (15,488 µg/l) and MW-6 (7212 µg/l), which are located adjacent to and within the service station building. Twelve petroleum VOCs, including 1,2,4-trimethylbenzene (max 1800 µg/l), 1,3,5-trimethylbenzene (max 420 µg/l), benzene (max 350 µg/l), ethylbenzene (max 1500 µg/l), xylenes (max 8900 µg/l), MTBE (max 360 µg/l), and toluene (max 3400 µg/l) were detected above GQSs. No chlorinated VOCs were detected in any groundwater sample. SVOCs were detected above NYSDEC GQSs in three of the four groundwater samples collected for analysis, with the highest concentrations detected in MW-2 (340 µg/l of naphthalene) and MW-8 (benzo(a)anthracene at 8 µg/l, chrysene at 7.6 µg/l, indeno(1,2,3-cd)pyrene at 3.8 µg/l with other benzo compounds also exceeding GQSs). The dissolved concentrations of the metals iron, magnesium, manganese and sodium were detected

above NYSDEC GQSs in groundwater samples. Overall, groundwater results are consistent with residual petroleum impacts from filling station operations.

5.4 Soil Vapor Chemistry

Soil vapor and sub-slab soil gas collected during the RI showed petroleum and chlorinated VOCs at low concentrations. BTEX concentrations were generally low at a maximum of 21.29 $\mu\text{g}/\text{m}^3$ for soil vapor and 31.07 $\mu\text{g}/\text{m}^3$ for sub-slab. PCE was detected in all four soil vapor samples and all three sub-slab soil gas samples at a concentration ranging from 4.13 to 37.8 $\mu\text{g}/\text{m}^3$. TCE was detected in one of the four soil gas samples (0.537 $\mu\text{g}/\text{m}^3$) and one of the three sub-slab soil vapors (4.89 $\mu\text{g}/\text{m}^3$). These PCE and TCE concentrations are below the monitoring level ranges established within the State DOH soil vapor guidance matrix.

Data collected during the RI is sufficient to delineate the distribution of contaminants in soil vapor at the Site. A summary table of data for chemical analyses performed on soil vapor samples is included in Table 11. Figure 8 shows the location and posts the values for soil vapor samples with detected concentrations.

5.5 Prior Activity

Based on an evaluation of the data and information from the RIR, disposal of significant amounts of hazardous waste is not suspected at this site.

5.6 Impediments to Remedial Action

There are no known impediments to remedial action at this property.

TABLES

Table 1
291 Metropolitan Avenue, Brooklyn, NY
Soil Boring / Well Information

SAMPLE ID	Date	Total Depth (ft)	Diameter (in)	Construction Materials	Screen Length (ft)	DTW (ft)
B1	1/4/2013	20	2	Geoprobe	-	-
B2	1/4/2013	20	2	Geoprobe	-	-
B3	1/4/2013	20	2	Geoprobe	-	-
B4	1/4/2013	20	2	Geoprobe	-	-
B5	1/4/2013	20	2	Geoprobe	-	-
MW7	1/4/2013	25	1	PVC	10.00	~19

TABLE 2
291 Metropolitan Avenue, Brooklyn, New York
Soil Analytical Results
Volatile Organic Compounds

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	B1						B2						B3						B4						B5						Duplicate	
			(0-2')		(10-12')		(18-20')		(0-2')		(10-12')		(15-17')		(0-2')		(10-12')		(18-20')		(0-2')		(10-12')		(16-18')		(0-2')		(10-12')		(18-20')		µg/Kg	
			µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL	µg/Kg	RL
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,1,1-Trichloroethane	680	100,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,1,2,2-Tetrachloroethane			ND	4.6	ND	3.5	-	ND	350	ND	2.7	-	ND	3.8	ND	3.3	-	ND	3.7	ND	3.7	-	ND	6.9	ND	2.9	-	ND	5.3					
1,1,2-Trichloroethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,1-Dichloroethane	270	26,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,1-Dichloroethane	330	100,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,1-Dichloropropene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,2,3-Trichlorobenzene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,2,3-Trichloropropane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,2,4-Trichlorobenzene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,2,4-Trimethylbenzene	3,600	52,000	ND	7.6	ND	5.9	ND 57	32,000	1400	ND	4.6	44	7.2	ND	6.3	ND	5.6	ND 1.2	ND	6.2	ND	6.1	ND 0.9	12	11	ND	4.8	14,000	290	ND	8.9			
1,2-Dibromo-3-chloropropane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,2-Dichlorobenzene	1,100	100,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,2-Dichloroethane	20	3,100	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,2-Dichloropropane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,3,5-Trimethylbenzene	8,400	52,000	ND	7.6	ND	5.9	ND 57	11,000	590	ND	4.6	18	1.2	ND	6.3	ND	5.6	ND 1.2	ND	6.2	ND	6.1	ND 0.9		11	ND	4.8	6,500	58	ND	8.9			
1,3-Dichlorobenzene	2,400	4,900	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,3-Dichloropropane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
1,4-Dichlorobenzene	1,800	13,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
2,2-Dichloropropane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
2-Chlorotoluene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
2-Hexanone (Methyl Butyl Ketone)			ND	38	ND	30	-	ND	2900	ND	23	-	ND	31	ND	28	-	ND	31	ND	30	-	ND	57	ND	24	-	ND	44					
2-Isopropyltoluene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
4-Chlorotoluene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
4-Methyl-2-Pentanone			ND	38	ND	30	-	ND	2900	ND	23	-	ND	31	ND	28	-	ND	31	ND	30	-	ND	57	ND	24	-	ND	44					
Acetone	50	100,000	ND	38	ND	30	-	ND	12000	ND	23	-	ND	31	ND	28	-	ND	31	ND	30	-	ND	46	ND	46	-	ND	44					
Acrylonitrile			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Benzene	60	4,800	ND	7.6	ND	5.9	ND 110	ND	590	ND	4.6	ND 2.5		ND	6.3	ND	5.6	ND 2.4	ND	6.2	ND	6.1	ND 1.8	16	11	ND	4.8	ND 120	ND	8.9				
Bromobenzene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Bromochloromethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Bromodichloromethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Bromoform			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Bromomethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Carbon Disulfide			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Carbon tetrachloride	760	2,400	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Chlorobenzene	1,100	100,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Chloroethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Chloroform	370	49,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Chloromethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
cis-1,2-Dichloroethane	250	100,000	ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
cis-1,3-Dichloropropene			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Dibromochloromethane			ND	4.6	ND	3.5	-	ND	350	ND	2.7	-	ND	3.8	ND	3.3	-	ND	3.7	ND	3.7	-	ND	6.9	ND	2.9	-	ND	5.3					
Dibromomethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Dichlorodifluoromethane			ND	7.6	ND	5.9	-	ND	590	ND	4.6	-	ND	6.3	ND	5.6	-	ND	6.2	ND	6.1	-	ND	11	ND	4.8	-	ND	8.9					
Ethylbenzene	1,000	41,000	ND	7.6	ND	5.9	160	110	2,200	590	ND	4.6	ND 2.5		ND	6.3	ND	5.6	ND 2.4	ND	6.2	ND	6.1	ND 1.8		11	ND	4.8	410	120	ND	8.9		

TABLE 4
291 Metropolitan Avenue Avenue, Brooklyn, New York
Soil Analytical Results
Pesticides PCBs

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	B1						B2						B3						B4						B5						Duplicate	
			(0-2) µg/Kg		(10-17) µg/Kg		(18-20) µg/Kg		(0-2) µg/Kg		(10-17) µg/Kg		(15-17) µg/Kg		(0-2) µg/Kg		(10-12) µg/Kg		(18-20) µg/Kg		(0-2) µg/Kg		(10-12) µg/Kg		(16-18) µg/Kg		(0-2) µg/Kg		(10-12) µg/Kg		(18-20) µg/Kg		µg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
4,4'-DDD	3.3	2,600	ND*	23	ND	2.3	-	-	ND*	23	ND	2.2	-	-	ND	2.3	ND	2.2	-	-	ND	2.2	ND	1.1	-	-	ND	2.5	ND	2.2	-	-	ND	2.2
4,4'-DDE	3.3	1,800	ND*	23	ND	2.3	-	-	ND*	23	ND	2.2	-	-	ND	2.3	ND	2.2	-	-	ND	2.2	ND	1.1	-	-	ND	2.5	ND	2.2	-	-	ND	2.2
4,4'-DDT	3.3	1,700	ND*	23	ND	2.3	-	-	ND*	23	ND	2.2	-	-	ND	2.3	ND	2.2	-	-	ND	2.2	ND	2.7	-	-	ND	2.5	ND	2.2	-	-	ND	2.6
a-BHC	20	97	ND*	36	ND	3.6	-	-	ND*	36	ND	3.5	-	-	ND	3.7	ND	3.5	-	-	ND	3.5	ND	1.8	-	-	ND	3.9	ND	3.6	-	-	ND	3.5
Alachlor			ND*	36	ND	3.6	-	-	ND*	36	ND	3.5	-	-	ND	3.7	ND	3.5	-	-	ND	3.5	ND	1.8	-	-	ND	3.9	ND	3.6	-	-	ND	3.5
Aldrin	5	19	ND*	11	ND	1.1	-	-	ND*	11	ND	1.1	-	-	ND	1.2	ND	1.1	-	-	ND	1.1	ND	0.55	-	-	ND	1.2	ND	1.1	-	-	ND	1.1
b-BHC	36	72	ND*	36	ND	3.6	-	-	ND*	36	ND	3.5	-	-	ND	3.7	ND	3.5	-	-	ND	3.5	ND	1.8	-	-	ND	3.9	ND	3.6	-	-	ND	3.5
Chlordane			ND*	110	ND	11	-	-	ND*	110	ND	11	-	-	ND	12	ND	11	-	-	ND	11	ND	5.5	-	-	ND	12	ND	11	-	-	ND	11
d-BHC	40	100,000	ND*	36	ND	3.6	-	-	ND*	36	ND	3.5	-	-	ND	3.7	ND	3.5	-	-	ND	3.5	ND	1.8	-	-	ND	3.9	ND	3.6	-	-	ND	3.5
Dieldrin	5	39	ND*	11	ND	1.1	-	-	ND*	11	ND	1.1	-	-	ND	1.2	ND	1.1	-	-	ND	1.1	ND	0.55	-	-	ND	1.2	ND	1.1	-	-	ND	1.1
Endosulfan I	2,400	4,800	ND*	36	ND	3.6	-	-	ND*	36	ND	3.5	-	-	ND	3.7	ND	3.5	-	-	ND	3.5	ND	1.8	-	-	ND	3.9	ND	3.6	-	-	ND	3.5
Endosulfan II	2,400	4,800	ND*	73	ND	7.3	-	-	ND*	72	ND	7	-	-	ND	7.4	ND	7	-	-	ND	7.1	ND	3.5	-	-	ND	7.9	ND	7.1	-	-	ND	7
Endosulfan sulfate	2,400	4,800	ND*	73	ND	7.3	-	-	ND*	72	ND	7	-	-	ND	7.4	ND	7	-	-	ND	7.1	ND	3.5	-	-	ND	7.9	ND	7.1	-	-	ND	7
Endrin	14	2,200	ND*	73	ND	7.3	-	-	ND*	72	ND	7	-	-	ND	7.4	ND	7	-	-	ND	7.1	ND	3.5	-	-	ND	7.9	ND	7.1	-	-	ND	7
Endrin aldehyde			ND*	73	ND	7.3	-	-	ND*	72	ND	7	-	-	ND	7.4	ND	7	-	-	ND	7.1	ND	3.5	-	-	ND	7.9	ND	7.1	-	-	ND	7
Endrin ketone			ND*	73	ND	7.3	-	-	ND*	72	ND	7	-	-	ND	7.4	ND	7	-	-	ND	7.1	ND	3.5	-	-	ND	7.9	ND	7.1	-	-	ND	7
g-BHC	100	280	ND*	11	ND	1.1	-	-	ND*	11	ND	1.1	-	-	ND	1.2	ND	1.1	-	-	ND	1.1	ND	0.55	-	-	ND	1.2	ND	1.1	-	-	ND	1.1
Heptachlor	42	420	ND*	23	ND	2.3	-	-	ND*	23	ND	2.2	-	-	ND	2.3	ND	2.2	-	-	ND	2.2	ND	1.1	-	-	ND	2.5	ND	2.2	-	-	ND	2.2
Heptachlor epoxide			ND*	36	ND	3.6	-	-	ND*	36	ND	3.5	-	-	ND	3.7	ND	3.5	-	-	ND	3.5	ND	1.8	-	-	ND	3.9	ND	3.6	-	-	ND	3.5
Methoxychlor			ND*	360	ND	36	-	-	ND*	360	ND	35	-	-	ND	37	ND	35	-	-	ND	35	ND	18	-	-	ND	39	ND	36	-	-	ND	35
Toxaphene			ND*	360	ND	36	-	-	ND*	360	ND	35	-	-	ND	37	ND	35	-	-	ND	35	ND	18	-	-	ND	39	ND	36	-	-	ND	35
PCB-1016	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1221	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1232	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1242	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1248	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1254	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1260	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	43	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1262	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73
PCB-1268	100	1,000	ND	76	ND	76	-	-	ND	76	ND	73	-	-	ND	77	ND	73	-	-	ND	74	ND	36	-	-	ND	82	ND	74	-	-	ND	73

Notes:

* Due to matrix interference from non target compounds in the sample an elevated RL was reported.

** - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives

ND - Non-Detect

Bold/highlighted- Indicated exceedance of the NYSDEC UUSCO Guidance Value

Bold/highlighted- Indicated exceedance of the NYSDEC RRSCO Guidance Value

TABLE 5
291 Metropolitan Avenue, Brooklyn, New York
Soil Analytical Results
Metals

COMPOUND	NYSDEC Part 375.6 Unrestricted Use Soil Cleanup Objectives	NYDEC Part 375.6 Restricted Residential Soil Cleanup Objectives*	B1						B2						B3						B4						B5						Duplicate	
			(0-2) mg/Kg		(10-12) mg/Kg		(18-20) mg/Kg		(0-2) mg/Kg		(10-12) mg/Kg		(15-17) mg/Kg		(0-2) mg/Kg		(10-12) mg/Kg		(18-20) mg/Kg		(0-2) mg/Kg		(10-12) mg/Kg		(16-18) mg/Kg		(0-2) mg/Kg		(10-12) mg/Kg		(18-20) mg/Kg		mg/Kg	
			Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum			5,050	58	8,350	51	-	-	6,790	54	10,800	50	-	-	11,900	55	12,200	51	-	-	9,420	58	8,270	56	-	-	9,030	61	6,710	51	-	-	9,320	59
Antimony			BRL	3.9	BRL	3.4	-	-	BRL	3.6	BRL	3.3	-	-	BRL	3.7	BRL	5	-	-	BRL	3.8	BRL	3.7	-	-	BRL	4.1	BRL	3.4	-	-	BRL	3.9
Arsenic	13	16	14.5	0.8	1.5	0.7	-	-	22.7	0.7	1.8	0.7	-	-	7.3	0.7	1.3	0.7	-	-	4.1	0.8	1.5	0.7	-	-	11.6	0.8	2	0.7	-	-	1.3	0.8
Barium	350	350	187	0.39	31.2	0.34	-	-	318	0.36	46	0.33	-	-	179	0.37	59.9	0.34	-	-	83.9	0.38	69.7	0.37	-	-	176	0.41	15.2	0.34	-	-	64.5	0.39
Beryllium	7.2	14	BRL	0.31	0.31	0.27	-	-	BRL	0.29	0.56	0.27	-	-	0.35	0.29	0.62	0.27	-	-	0.31	0.31	0.38	0.3	-	-	0.33	0.32	BRL	0.27	-	-	0.44	0.31
Cadmium	2.5	2.5	1.11	0.39	BRL	0.34	-	-	0.81	0.36	BRL	0.33	-	-	BRL	0.37	BRL	0.34	-	-	BRL	0.38	BRL	0.37	-	-	0.75	0.41	BRL	0.34	-	-	BRL	0.39
Calcium			25,700	58	797	5.1	-	-	49,100	54	825	5	-	-	1,860	5.5	552	5.1	-	-	27,800	58	798	5.6	-	-	27,000	61	931	5.1	-	-	1,160	5.9
Chromium			15.3	0.39	13	0.34	-	-	25.8	0.36	26	0.33	-	-	22.8	0.37	37.8	0.34	-	-	10.8	0.38	21.4	0.37	-	-	17.3	0.41	13.7	0.34	-	-	21.5	0.39
Cobalt			6.43	0.39	4.69	0.34	-	-	5.5	0.36	4.72	0.33	-	-	4.87	0.37	8.7	0.34	-	-	3.1	0.38	13.9	0.37	-	-	6.31	0.41	3.96	0.34	-	-	5.44	0.39
Copper	50	270	106	0.39	13.9	0.34	-	-	64.9	0.36	18.3	0.33	-	-	70.9	0.37	16.7	0.34	-	-	13.9	0.38	13.4	0.37	-	-	58.4	0.41	14.8	0.34	-	-	21.1	0.39
Iron			17,300	58	7,680	51	-	-	14,800	54	12,000	50	-	-	17,800	55	42,700	51	-	-	11,200	58	22,800	56	-	-	18,100	61	7,490	51	-	-	12,100	59
Lead	63	400	336	3.9	15.6	0.34	-	-	561	3.6	11	0.33	-	-	518	3.7	11	0.34	-	-	55.5	0.38	7.93	0.37	-	-	346	4.1	6.65	0.34	-	-	11.1	0.39
Magnesium			7,820	58	1,880	5.1	-	-	2,210	5.4	2,170	5	-	-	2,110	5.5	3,370	5.1	-	-	2,330	5.8	2,100	5.6	-	-	2,220	6.1	1,810	5.1	-	-	2,620	5.9
Manganese	1,600	2,000	237	3.9	96.8	0.34	-	-	307	3.6	226	3.3	-	-	269	3.7	355	3.4	-	-	260	3.8	1,190	3.7	-	-	359	4.1	117	0.34	-	-	141	0.39
Mercury	0.18	0.81	0.46	0.07	BRL	0.08	-	-	1.07	0.07	BRL	0.08	-	-	1.57	0.09	BRL	0.08	-	-	0.61	0.09	BRL	0.08	-	-	0.61	0.07	BRL	0.09	-	-	BRL	0.09
Nickel	30	140	26.2	0.39	12.2	0.34	-	-	13.3	0.36	12.4	0.33	-	-	13.5	0.37	17.7	0.34	-	-	7.88	0.38	14.4	0.37	-	-	18.3	0.41	12.2	0.34	-	-	14	0.39
Potassium			784	6.8	884	5.1	-	-	1,070	5.4	1,360	5	-	-	961	6.5	1,880	5.1	-	-	938	6.8	1,180	5.6	-	-	1,120	6.1	792	5.1	-	-	1,680	5.9
Selenium	3.9	36	BRL	1.6	BRL	1.4	-	-	BRL	1.4	BRL	1.3	-	-	BRL	1.5	BRL	1.4	-	-	BRL	1.5	BRL	1.5	-	-	BRL	1.6	BRL	1.4	-	-	BRL	1.6
Silver	2	36	BRL	0.39	BRL	0.34	-	-	BRL	0.36	BRL	0.33	-	-	BRL	0.37	BRL	0.34	-	-	BRL	0.38	BRL	0.37	-	-	BRL	0.41	BRL	0.34	-	-	BRL	0.39
Sodium			123	5.8	77.9	5.1	-	-	275	5.4	105	5	-	-	225	5.5	129	5.1	-	-	1190	5.8	78.8	5.6	-	-	364	6.1	80.5	5.1	-	-	121	5.9
Thallium			BRL	0.6	BRL	0.5	-	-	BRL	0.6	BRL	0.5	-	-	BRL	0.6	BRL	0.5	-	-	BRL	0.6	BRL	0.6	-	-	BRL	0.6	BRL	0.5	-	-	BRL	0.6
Vanadium			21.9	0.39	18.5	0.34	-	-	22.5	0.36	41.1	0.33	-	-	28.8	0.37	51.3	0.34	-	-	18	0.38	30	0.37	-	-	25.6	0.41	18.2	0.34	-	-	38.5	0.39
Zinc	109	2,200	275	3.9	34.5	0.34	-	-	425	3.6	38.2	0.33	-	-	145	3.7	68.5	0.34	-	-	50.4	0.38	40.4	0.37	-	-	327	4.1	41.6	0.34	-	-	46.8	0.39

Notes:
** - 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives
BRL - Below Reporting Limit

Bold/highlighted - Indicated exceedance of the NYSDEC UUSCO Guidance Value
Bold/highlighted - Indicated exceedance of the NYSDEC RRSO Guidance Value

TABLE 6
291 Metropolitan Avenue, Brooklyn, New York
Groundwater Analytical Results
Volatile Organic Compounds

Compound	NYSDEC Groundwater Quality Standards µg/L	MW1 µg/L		MW2 µg/L		MW3 µg/L		MW6 µg/L		MW7 µg/L		SVE1 µg/L		Duplicate µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,1,1-Trichloroethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,1,2,2-Tetrachloroethane	5	ND	0.5	ND	5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
1,1,2-Trichloroethane	1	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,1-Dichloroethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,1-Dichloroethene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,1-Dichloropropene		ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,2,3-Trichlorobenzene		ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,2,3-Trichloropropane	0.04	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,2,4-Trichlorobenzene		ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	5	ND	1	1,800	100	9.3	1	1,100	100	ND	1	ND	1	ND	1
1,2-Dibromo-3-chloropropane	0.04	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,2-Dichloroethane	0.6	ND	0.6	ND	6	ND	0.6	ND	6	ND	0.6	ND	0.6	ND	0.6
1,2-Dichloropropane	0.94	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,2-Dibromoethane		ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	5	ND	1	420	100	1.3	1	280	10	ND	1	ND	1	ND	1
1,3-Dichlorobenzene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,3-Dichloropropane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
1,4-Dichlorobenzene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
2,2-Dichloropropane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
2-Chlorotoluene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
2-Hexanone (Methyl Butyl Ketone)		ND	5	ND	50	ND	5	ND	50	ND	5	ND	5	ND	5
2-Isopropyltoluene	5	1.8	1	ND	10	ND	1	ND	10	ND	1	ND	1	1.8	1
4-Chlorotoluene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
4-Methyl-2-Pentanone		ND	5	ND	50	ND	5	ND	50	ND	5	ND	5	ND	5
Acetone		ND	25	ND	250	ND	25	ND	250	38	10	ND	25	ND	25
Acrylonitrile	5	ND	5	ND	50	ND	5	ND	50	ND	5	ND	5	ND	5
Benzene	1	ND	0.7	210	7	0.87	0.7	350	70	ND	0.7	4.2	0.7	ND	1
Bromobenzene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Bromochloromethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Bromodichloromethane		ND	0.5	ND	5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
Bromoform		ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Bromomethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Carbon Disulfide	60	ND	5	ND	50	ND	5	ND	50	ND	5	ND	5	ND	5
Carbon tetrachloride	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Chlorobenzene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Chloroethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Chloroform	7	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Chloromethane	60	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
cis-1,2-Dichloroethene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
cis-1,3-Dichloropropene		ND	0.5	ND	5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
Dibromochloromethane		ND	0.5	ND	5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
Dibromomethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Dichlorodifluoromethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Ethylbenzene	5	ND	1	1,500	100	ND	1	490	100	ND	1	ND	1	ND	1
Hexachlorobutadiene	0.5	ND	0.4	ND	4	ND	0.4	ND	4	ND	0.4	ND	0.4	ND	0.4
Isopropylbenzene	5	ND	1	80	10	1	1	48	10	ND	1	ND	1	ND	1
m&p-Xylenes	5	ND	1	5,900	500	1.7	1	2,800	100	ND	1	ND	1	ND	1
Methyl Ethyl Ketone (2-Butanone)		ND	5	ND	50	ND	5	ND	50	ND	5	ND	5	ND	5
Methyl t-butyl ether (MTBE)	10	360	50	92	10	230	10	170	10	17	1	4.5	1	370	50
Methylene chloride	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Naphthalene	10	ND	1	470	10	4.1	1	310	10	ND	1	ND	1	ND	1
n-Butylbenzene	5	ND	1	15	10	ND	1	ND	10	ND	1	ND	1	ND	1
n-Propylbenzene	5	ND	1	180	10	1	1	77	10	ND	1	ND	1	ND	1
o-Xylene	5	ND	1	3,000	100	2.6	1	1,100	100	ND	1	ND	1	ND	1
p-Isopropyltoluene		ND	1	ND	10	ND	1	27	10	ND	1	ND	1	ND	1
sec-Butylbenzene	5	2	1	ND	10	ND	1	ND	10	ND	1	ND	1	2	1
Styrene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
tert-Butylbenzene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Tetrachloroethene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Tetrahydrofuran (THF)		ND	5	ND	50	ND	5	ND	50	ND	5	ND	5	ND	5
Toluene	5	ND	1	3,400	500	ND	1	460	100	ND	1	1.1	1	ND	1
Total Xylenes	5	ND	1	8,900	10	4.3	1	3,900	10	ND	1	ND	1	ND	1
trans-1,2-Dichloroethene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
trans-1,3-Dichloropropene	0.4	ND	0.5	ND	5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5
trans-1,4-dichloro-2-butene	5	ND	5	ND	50	ND	5	ND	50	ND	5	ND	5	ND	5
Trichloroethene	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Trichlorofluoromethane	5	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Trichlorotrifluoroethane		ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1
Vinyl Chloride	2	ND	1	ND	10	ND	1	ND	10	ND	1	ND	1	ND	1

Notes:

ND - Not detected

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 7
291 Metropolitan Avenue, Brooklyn, New York
Groundwater Analytical Results
Semi-Volatile Organic Compounds

Compound	NYSDEC Groundwater Quality Standards µg/L	MW1 µg/L		MW2 µg/L		MW3 µg/L		MW6 µg/L		MW7 µg/L		SVE1 µg/L		Duplicate µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,2,4,5-Tetrachlorobenzene		ND	1.6	ND	10	ND	1.6	-	-	ND	1.7	-	-	ND	1.6
1,2,4-Trichlorobenzene		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
2,4,5-Trichlorophenol	3	ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
2,4,6-Trichlorophenol	3	ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
1,2-Dichlorobenzene		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
1,3-Dichlorobenzene		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
1,4-Dichlorobenzene		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
2,4-Dichlorophenol		ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
2,4-Dimethylphenol		ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
2,4-Dinitrophenol		ND	50	ND	50	ND	50	-	-	ND	53	-	-	ND	50
2,4-Dinitrotoluene	5	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
2,6-Dinitrotoluene	5	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
2-Chloronaphthalene	10	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
2-Chlorophenol		ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
2-Methylnaphthalene		ND	5	120	10	ND	5	-	-	ND	5.3	-	-	ND	5
2-Methylphenol (o-cresol)		ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
2-Nitroaniline	5	ND	50	ND	50	ND	50	-	-	ND	53	-	-	ND	50
2-Nitrophenol		ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
3&4-Methylphenol (m&p-cresol)		ND	10	17	10	ND	10	-	-	ND	11	-	-	ND	10
3,3'-Dichlorobenzidine	5	ND	50	ND	20	ND	50	-	-	ND	53	-	-	ND	50
3-Nitroaniline	5	ND	50	ND	50	ND	50	-	-	ND	53	-	-	ND	50
4,6-Dinitro-2-methylphenol		ND	50	ND	50	ND	50	-	-	ND	53	-	-	ND	50
4-Bromophenyl phenyl ether		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
4-Chloro-3-methylphenol		ND	20	ND	20	ND	20	-	-	ND	21	-	-	ND	20
4-Chloroaniline	5	ND	20	ND	20	ND	20	-	-	ND	21	-	-	ND	20
4-Chlorophenyl phenyl ether		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
4-Nitroaniline	5	ND	20	ND	50	ND	20	-	-	ND	21	-	-	ND	20
4-Nitrophenol		ND	50	ND	50	ND	50	-	-	ND	53	-	-	ND	50
Acenaphthene	20	ND	0.05	ND	10	ND	0.05	-	-	7.3	0.053	-	-	ND	0.05
Acenaphthylene		ND	0.05	ND	10	ND	0.05	-	-	0.38	0.053	-	-	ND	0.05
Acetophenone		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Aniline		ND	10	ND	50	ND	10	-	-	ND	11	-	-	ND	10
Anthracene	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Benzo(a)anthracene	0.002	ND	0.04	ND	10	0.05	0.04	-	-	8.20	0.042	-	-	0.05	0.04
Benzidine	5	ND	50	ND	20	ND	50	-	-	ND	53	-	-	ND	50
Benzo(a)pyrene		ND	0.05	ND	10	ND	0.05	-	-	7.3	0.053	-	-	ND	0.05
Benzo(b)fluoranthene	0.002	ND	0.05	ND	10	ND	0.05	-	-	8.10	0.053	-	-	ND	0.05
Benzo(g,h,i)perylene		ND	3	ND	10	ND	3	-	-	3.5	3.2	-	-	ND	3
Benzo(k)fluoranthene	0.002	ND	0.05	ND	10	ND	0.05	-	-	2.70	0.053	-	-	ND	0.05
Benzoic Acid		ND	50	ND	50	ND	50	-	-	ND	53	-	-	ND	50
Bis(2-chloroethoxy)methane	5	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Bis(2-chloroethyl)ether	1	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Bis(2-chloroisopropyl)ether		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Bis(2-ethylhexyl)phthalate	5	ND	1.6	ND	10	ND	1.6	-	-	ND	1.7	-	-	ND	1.6
Carbazole		ND	5	ND	50	ND	5	-	-	ND	5.3	-	-	ND	5
Chrysene	0.002	ND	0.05	ND	10	ND	0.05	-	-	7.6	0.053	-	-	ND	0.05
Dibenzo(a,h)anthracene		ND	0.01	ND	10	ND	0.01	-	-	0.77	0.011	-	-	ND	0.01
Dibenzofuran		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Diethylphthalate	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Dimethylphthalate	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Di-n-butylphthalate	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Di-n-octylphthalate	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Fluoranthene	50	ND	5	ND	10	ND	5	-	-	22	5.3	-	-	ND	5
Fluorene	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Hexachlorobenzene	0.04	ND	0.06	ND	10	ND	0.06	-	-	ND	0.063	-	-	ND	0.06
Hexachlorobutadiene	0.5	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Hexachlorocyclopentadiene	5	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Hexachloroethane	5	ND	2.4	ND	10	ND	2.4	-	-	ND	2.5	-	-	ND	2.4
Indeno(1,2,3-cd)pyrene	0.002	ND	0.05	ND	10	ND	0.05	-	-	3.8	0.053	-	-	ND	0.05
Isophorone	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Naphthalene	10	ND	5	340	10	ND	5	-	-	ND	5.3	-	-	ND	5
Nitrobenzene	0.4	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
N-Nitrosodimethylamine		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
N-Nitrosodi-n-propylamine		ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
N-Nitrosodiphenylamine	50	ND	5	ND	10	ND	5	-	-	ND	5.3	-	-	ND	5
Pentachloronitrobenzene		ND	0.1	ND	10	ND	0.1	-	-	ND	0.11	-	-	ND	0.1
Pentachlorophenol		ND	0.8	ND	10	ND	0.8	-	-	ND	0.84	-	-	ND	0.8
Phenanthrene	50	ND	0.05	ND	10	0.05	0.05	-	-	21	0.053	-	-	ND	0.05
Phenol		ND	10	ND	10	ND	10	-	-	ND	11	-	-	ND	10
Pyrene	50	ND	5	ND	10	ND	5	-	-	23	5.3	-	-	ND	5
Pyridine		ND	0.5	ND	10	ND	0.5	-	-	ND	0.53	-	-	ND	0.5

Notes:

ND - Not detected

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 8
 291 Metropolitan Avenue, Brooklyn, New York
 Groundwater Analytical Results
 Pesticides/PCBs

Compound	NYSDEC Groundwater Quality Standards µg/L	MW1 µg/L		MW2 µg/L		MW3 µg/L		MW6 µg/L		MW7 µg/L		SVE1 µg/L		Duplicate µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
PCB-1016	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1221	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1232	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1242	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1248	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1254	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1260	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1262	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
PCB-1268	0.09	ND	0.1	ND	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
4,4-DDD	0.3	ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
4,4-DDE	0.2	ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
4,4-DDT	0.11	ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
a-BHC	0.94	ND	0.025	ND*	0.025	ND	0.025	-	-	ND	0.025	-	-	ND	0.025
Alachlor		ND	0.075	ND*	0.075	ND	0.075	-	-	ND	0.075	-	-	ND	0.075
Aldrin		ND	0.002	ND*	0.002	ND	0.002	-	-	ND	0.002	-	-	ND	0.002
b-BHC	0.04	ND	0.005	ND*	0.005	ND*	0.01	-	-	ND	0.005	-	-	ND	0.005
Chlordane	0.05	ND	0.3	ND*	0.3	ND	0.3	-	-	ND	0.3	-	-	ND	0.3
d-BHC	0.04	ND	0.025	ND*	0.025	ND	0.025	-	-	ND	0.025	-	-	ND	0.025
Dieldrin	0.004	ND	0.002	ND*	0.002	ND*	0.004	-	-	ND*	0.004	-	-	ND*	0.009
Endosulfan I		ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
Endosulfan II		ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
Endosulfan Sulfate		ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
Endrin		ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
Endrin aldehyde	5	ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
Endrin ketone		ND	0.05	ND*	0.05	ND	0.05	-	-	ND	0.05	-	-	ND	0.05
gamma-BHC	0.05	ND	0.025	ND*	0.025	ND	0.025	-	-	ND	0.025	-	-	ND	0.025
Heptachlor	0.04	ND	0.025	ND*	0.025	ND	0.025	-	-	ND	0.025	-	-	ND	0.025
Heptachlor epoxide	0.03	ND	0.025	ND*	0.025	ND	0.025	-	-	ND	0.025	-	-	ND	0.025
Methoxychlor	35	ND	0.1	ND*	0.1	ND	0.1	-	-	ND	0.1	-	-	ND	0.1
Toxaphene		ND	1	ND*	1	ND	1	-	-	ND	1	-	-	ND	1

Notes:
 ND - Non-detect
 ND* - Due to matrix interference from non target compounds in the sample an elevated RL was reported.
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Table 9
 291 Metropolitan Avenue Brooklyn, New York
 Groundwater Analytical Results
 TAL Metals

Compound	NYSDEC Groundwater Quality Standards µg/L	MW1 µg/L		MW2 µg/L		MW3 µg/L		MW6 µg/L		MW7 µg/L		SVE1 µg/L		Duplicate µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Aluminum	NS	43,000	100	319	10	719	10	-	-	452	10	-	-	31,800	10
Antimony	3	BRL	10	BRL	10	BRL	10	-	-	BRL	10	-	-	BRL	10
Arsenic	25	39	4	BRL	4	BRL	4	-	-	BRL	4	-	-	24	4
Barium	1000	557	2	169	2	67	2	-	-	55	2	-	-	384	2
Beryllium	3	4	1	BRL	1	BRL	1	-	-	BRL	1	-	-	3	1
Cadmium	5	1	1	BRL	1	BRL	1	-	-	BRL	1	-	-	BRL	1
Calcium	NS	144,000	10	93,900	10	175,000	10	-	-	315,000	100	-	-	148,000	10
Chromium	50	249	1	2	1	2	1	-	-	BRL	1	-	-	183	1
Cobalt	NS	57	2	5	2	8	2	-	-	4	2	-	-	37	2
Copper	200	262	5	BRL	5	BRL	5	-	-	8	5	-	-	154	5
Iron	500	218,000	100	14,300	10	2,640	10	-	-	451	10	-	-	165,000	100
Lead	25	113	2	10	2	11	2	-	-	31	2	-	-	75	2
Magnesium	35000	38,000	10	19,500	10	29,900	10	-	-	52,300	10	-	-	36,800	10
Manganese	300	5,610	10	14,700	10	7,430	10	-	-	2,330	10	-	-	5,580	10
Mercury	0.7	0.2	0.2	BRL	0.2	BRL	0.2	-	-	BRL	0.2	-	-	0.3	0.2
Nickel	100	108	1	6	1	10	1	-	-	13	1	-	-	77	1
Potassium	NS	47,700	100	17,800	100	27,900	100	-	-	19,800	100	-	-	41,900	100
Selenium	10	BRL	20	BRL	20	BRL	20	-	-	BRL	20	-	-	BRL	20
Silver	50	BRL	1	BRL	1	BRL	1	-	-	BRL	1	-	-	BRL	1
Sodium	2000	84,200	1000	54,200	100	100,000	100	-	-	103,000	100	-	-	99,900	100
Thallium	0.5	BRL	2	BRL	2	BRL	2	-	-	BRL	2	-	-	BRL	2
Vanadium	NS	221	2	BRL	2	3	2	-	-	BRL	2	-	-	158	2
Zinc	2000	256	2	2	2	11	2	-	-	80	2	-	-	174	2

Notes:

BRL - Below Reporting Limit

NS - No Standard

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Table 10
 291 Metropolitan Avenue, Brooklyn, New York
 Groundwater Analytical Results
 TAL Filtered Metals

Compound	NYSDEC Groundwater Quality Standards µg/L	MW1 µg/L		MW2 µg/L		MW3 µg/L		MW6 µg/L		MW7 µg/L		SVE1 µg/L		Duplicate µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Silver	50	BRL	1	BRL	1	BRL	1	-	-	BRL	1	-	-	BRL	1
Aluminum	NS	380	10	50	10	BRL	10	-	-	10	10	-	-	2,230	10
Arsenic	25	BRL	4	BRL	4	BRL	4	-	-	BRL	4	-	-	BRL	4
Barium	1000	90	2	130	2	56	2	-	-	49	2	-	-	128	2
Beryllium	3	BRL	1	BRL	1	BRL	1	-	-	BRL	1	-	-	BRL	1
Calcium	NS	122,000	10	95,900	10	173,000	10	-	-	301,000	110	-	-	141,000	10
Cadmium	5	BRL	1	BRL	1	BRL	1	-	-	BRL	1	-	-	BRL	1
Cobalt	NS	2	1	7	1	8	1	-	-	6	1	-	-	3	1
Chromium	50	BRL	1	BRL	1	BRL	1	-	-	BRL	1	-	-	6	1
Copper	200	BRL	5	BRL	5	BRL	5	-	-	9	5	-	-	7	5
Iron	500	475	11	6,980	11	29	11	-	-	98	11	-	-	3,100	11
Mercury	0.7	BRL	0.2	BRL	0.2	BRL	0.2	-	-	BRL	0.2	-	-	BRL	0
Potassium	NS	52,300	100	24,900	100	37,200	100	-	-	26,200	100	-	-	49,200	100
Magnesium	35000	20,800	10	19,800	10	29,500	10	-	-	49,200	10	-	-	25,700	10
Manganese	300	2,370	11	14,100	11	7,920	11	-	-	2,050	1	-	-	3,340	11
Sodium	2000	123,000	110	57,500	110	124,000	110	-	-	114,000	110	-	-	108,000	110
Nickel	100	3	1	6	1	9	1	-	-	14	1	-	-	5	2
Lead	25	BRL	2	BRL	2	BRL	2	-	-	11	2	-	-	3	2
Antimony	3	BRL	10	BRL	10	BRL	10	-	-	BRL	10	-	-	BRL	10
Selenium	10	BRL	20	BRL	20	BRL	20	-	-	BRL	20	-	-	BRL	20
Thallium	0.5	BRL	2	BRL	2	BRL	2	-	-	BRL	2	-	-	BRL	2
Vanadium	NS	BRL	2	BRL	2	BRL	2	-	-	BRL	2	-	-	4	2
Zinc	2000	BRL	2	BRL	2	4	2	-	-	69	2	-	-	5	2

Notes:

BRL - Below Reporting Limit

NS - No Standard

Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

Table 12
291 Metropolitan Avenue, Brooklyn, NY
Water Level Data

Well No.	First Reading	Casing Elevation	DTW 3/18/2013	DTP	PT	GW ELV 6/15/2012
MW1	18.59	81.41	4.25	-	-	77.16
MW2	18.32	81.68	4.26	-	-	77.42
MW3	17.90	82.1	4.67	-	-	77.43
MW4	18.37	81.63	4.22	-	-	77.41
MW6	18.04	81.96	4.78	-	-	77.18
SVE1	17.18	82.82	4.68	-	-	78.14

TABLE 11
291 Metropolitan Avenue, Brooklyn, New York
Soil Gas - Volatile Organic Compounds

COMPOUNDS	NYSDOH Maximum Sub Slab Value (µg/m ³) ^(a)	NYSDOH Soil Outdoor Background Levels (µg/m ³) ^(a)	SG-1 (µg/m ³)		SG-2 (µg/m ³)		SG-3 (µg/m ³)		SG-4 (µg/m ³)		SS-1 (µg/m ³)		SS-3 (µg/m ³)		SS-4 (µg/m ³)	
			Result	RL												
1,1,1,2-Tetrachloroethane			ND	1												
1,1,1-Trichloroethane	100	<2.0 - 2.8	ND	1												
1,1,2,2-Tetrachloroethane		<1.5	ND	1												
1,1,2-Trichloroethane		<1.0	ND	1												
1,1-Dichloroethane		<1.0	ND	1												
1,1-Dichloroethene		<1.0	ND	1												
1,2,4-Trichlorobenzene		NA	ND	1												
1,2,4-Trimethylbenzene		<1.0	ND	1												
1,2-Dibromoethane		<1.5	ND	1												
1,2-Dichlorobenzene		<2.0	ND	1												
1,2-Dichloroethane		<1.0	ND	1												
1,2-Dichlorotetrafluoroethane			ND	1												
1,3,5-Trimethylbenzene		<1.0	ND	1												
1,3-Butadiene		NA	ND	1												
1,3-Dichlorobenzene		<2.0	ND	1												
1,4-Dichlorobenzene		NA	ND	1												
1,4-Dioxane			ND	1	ND	1	ND	1	ND	1	1.58	1	ND	1	ND	1
2-Hexanone			ND	1												
4-Ethyltoluene		NA	ND	1												
4-Isopropyltoluene			ND	1												
4-Methyl-2-pentanone			ND	1	ND	1	ND	1	ND	1	1.84	1	ND	1	ND	1
Acetone		NA	55.3	1	11.5	1	3.61	1	2.92	1	212	1	36.1	1	116	1
Acrylonitrile			ND	1												
Benzene		<1.6 - 4.7	1.37	1	1.34	1	ND	1	ND	1	10.9	1	3.22	1	4.85	1
Benzyl Chloride		NA	ND	1												
Bromodichloromethane		<5.0	ND	1												
Bromoform		<1.0	ND	1												
Bromomethane		<1.0	ND	1												
Carbon Disulfide		NA	5.51	1	2.61	1	9.74	1	7.81	1	1.12	1	2.12	1	9.06	1
Carbon Tetrachloride	5	<3.1	0.314	0.25	0.44	0.25	0.88	0.25	0.377	0.25	0.503	0.25	4.4	0.25	0.314	0.25
Chlorobenzene		<2.0	ND	1												
Chloroethane		NA	ND	1												
Chloroform		<2.4	ND	1	1.46	1	ND	1	ND	1	ND	1	1.85	1	ND	1
Chloromethane		<1.0 - 1.4	ND	1	ND	1	ND	1	ND	1	1.22	1	ND	1	ND	1
cis-1,2-Dichloroethene		<1.0	ND	1												
cis-1,3-Dichloropropene		NA	ND	1												
Cyclohexane		NA	ND	1	1.65	1	ND	1								
Dibromochloromethane		<5.0	ND	1												
Dichlorodifluoromethane		NA	2.42	1	2.52	1	ND	1	24.4	1	2.62	1	11	1	2.92	1
Ethanol			20	1	17.4	1	18.3	1	16.2	1	26.4	1	41.2	1	418	1
Ethyl Acetate		NA	2.88	1	1.26	1	2.05	1	2.05	1	7.27	1	5.29	1	3.96	1
Ethylbenzene		<4.3	ND	1	2.65	1	1.22	1	1.34	1	2.6	1	ND	1	1.56	1
Heptane		NA	1.19	1	ND	1	ND	1	ND	1	3.36	1	1.88	1	5.2	1
Hexachlorobutadiene		NA	ND	1												
Hexane		<1.5	ND	1	5.78	1	ND	1	ND	1	ND	1	3.98	1	2.96	1
Isopropylalcohol		NA	ND	1	1.57	1	1.7	1	2.26	1	6.26	1	6.26	1	5.6	1
Isopropylbenzene			ND	1	ND	1	ND	1	ND	1	14.8	1	ND	1	ND	1
Xylene (m&p)		<4.3	2.86	1	13.5	1	4.04	1	4.08	1	4.47	1	2.34	1	4.25	1
Methyl Ethyl Ketone			1.27	1	1.27	1	ND	1	ND	1	8.64	1	ND	1	10.5	1
MTBE		NA	20.4	1	1.33	1	50.8	1	1.51	1	ND	1	ND	1	3.89	1
Methylene Chloride		<3.4	3.85	1	6.08	1	1.87	1	1.87	1	2.74	1	1.49	1	1.87	1
n-Butylbenzene			ND	1												
Xylene (o)		<4.3	ND	1	ND	1	1.34	1	1.69	1	2.13	1	ND	1	2	1
Propylene		NA	ND	1	ND	1	ND	1	1.89	1	6.81	1	ND	1	13.1	1
sec-Butylbenzene			ND	1												
Styrene		<1.0	ND	1												
Tetrachloroethene	100		11.3	0.25	6.85	0.25	37.8	0.25	18.5	0.25	7.8	0.25	4.13	0.25	7.32	0.25
Tetrahydrofuran		NA	ND	1	ND	1	ND	1	ND	1	2.21	1	ND	1	ND	1
Toluene		1.0 - 6.1	7.42	1	3.8	1	5.01	1	4.37	1	13.1	1	3.43	1	5.99	1
trans-1,2-Dichloroethene		NA	ND	1												
trans-1,3-Dichloropropene		NA	ND	1												
Trichloroethene	5	<1.7	ND	0.25	ND	0.25	0.537	0.25	ND	0.25	4.89	0.25	ND	0.25	ND	0.25
Trichlorofluoromethane		NA	1.29	1	1.35	1	1.24	1	1.18	1	1.52	1	ND	1	1.18	1
Trichlorotrifluoroethane			ND	1												
Vinyl Chloride		<1.0	ND	0.25	ND	0.25	ND	0.25	ND	0.25	0.255	0.25	ND	0.25	ND	0.25

Notes:

NA No guidance value or standard available

(a) Final Guidance for Evaluating Soil

(b) NYSDOH Guidance for

Value detected above NYSDOH Air Guidance Value of 5 µg/m³, which according to Soil Vapor/Indoor Air Matrix 1 would require at a minimum, monitoring.

FIGURES



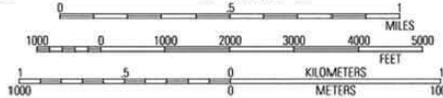
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73°59.000' W

73°58.000' W

73°57.000' W

WGS84 73°56.000' W



USGS Brooklyn Quadrangle 1995, Contour Interval = 10 feet

MN|↑N
13°
10/30/11

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS
1808 MIDDLE COUNTRY ROAD, RIDGE, NY 11961

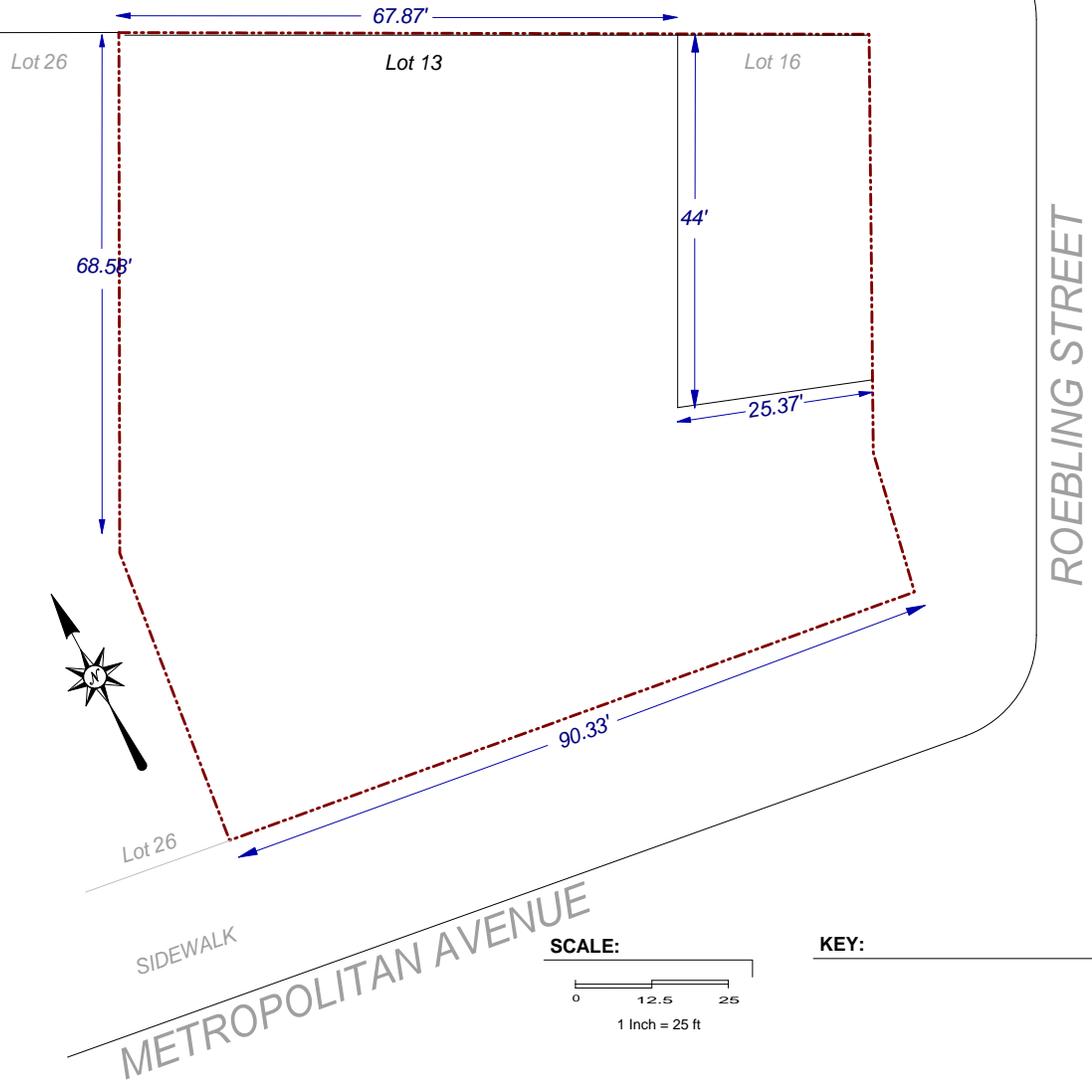
Phone 631.504.6000
Fax 631.924.2780

**291 METROPOLITAN AVENUE
BROOKLYN, NY**

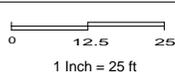
FIGURE 1 SITE LOCATION MAP

N. 4th STREET

SIDEWALK



SCALE:



KEY:



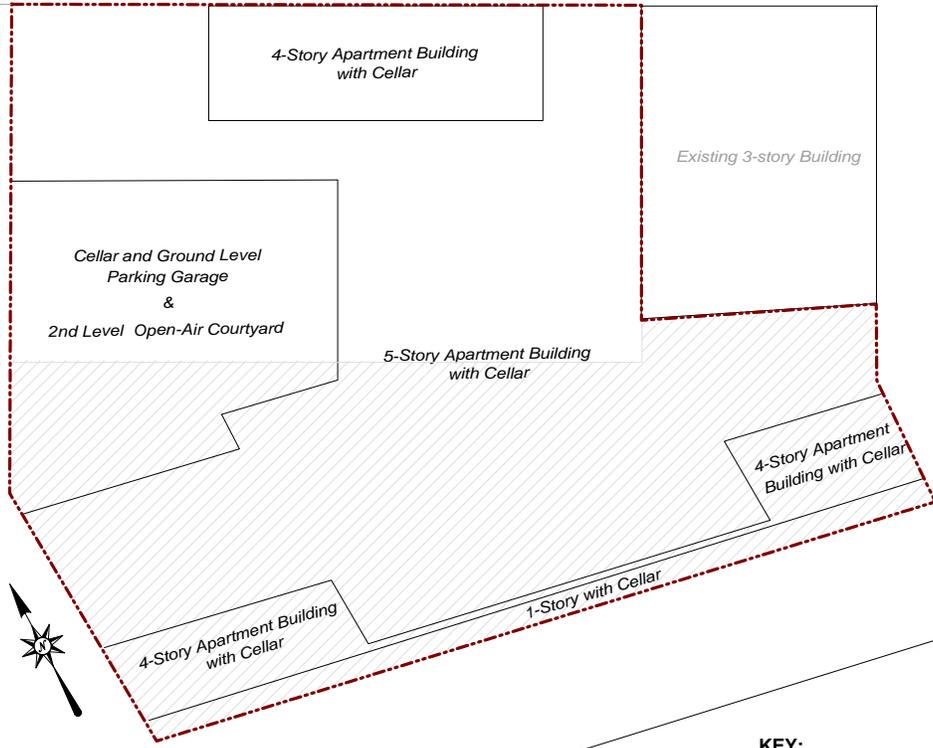
Phone 631.504.6000
Fax 631.924.2870

FIGURE
2

SITE ADDRESS: 291 METROPOLITAN AVENUE
BROOKLYN, NY
DRAWING TITLE: SITE BOUNDARY

N. 4th STREET

Sidewalk



ROEBLING STREET

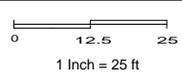
Sidewalk

METROPOLITAN AVENUE

KEY:

 Cellar Level Retail Space

SCALE:



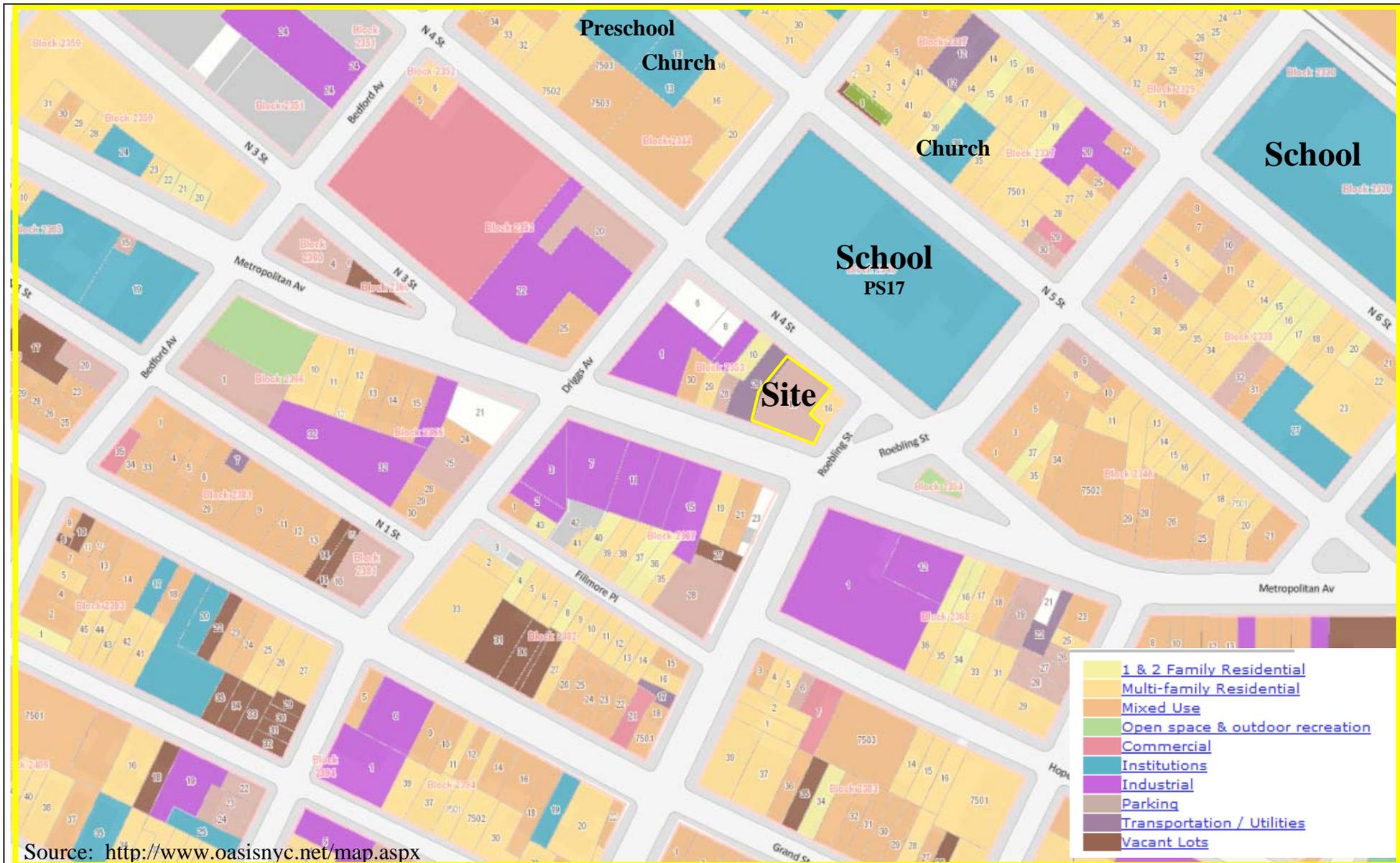


FIGURE 4
SURROUNDING LAND USE MAP

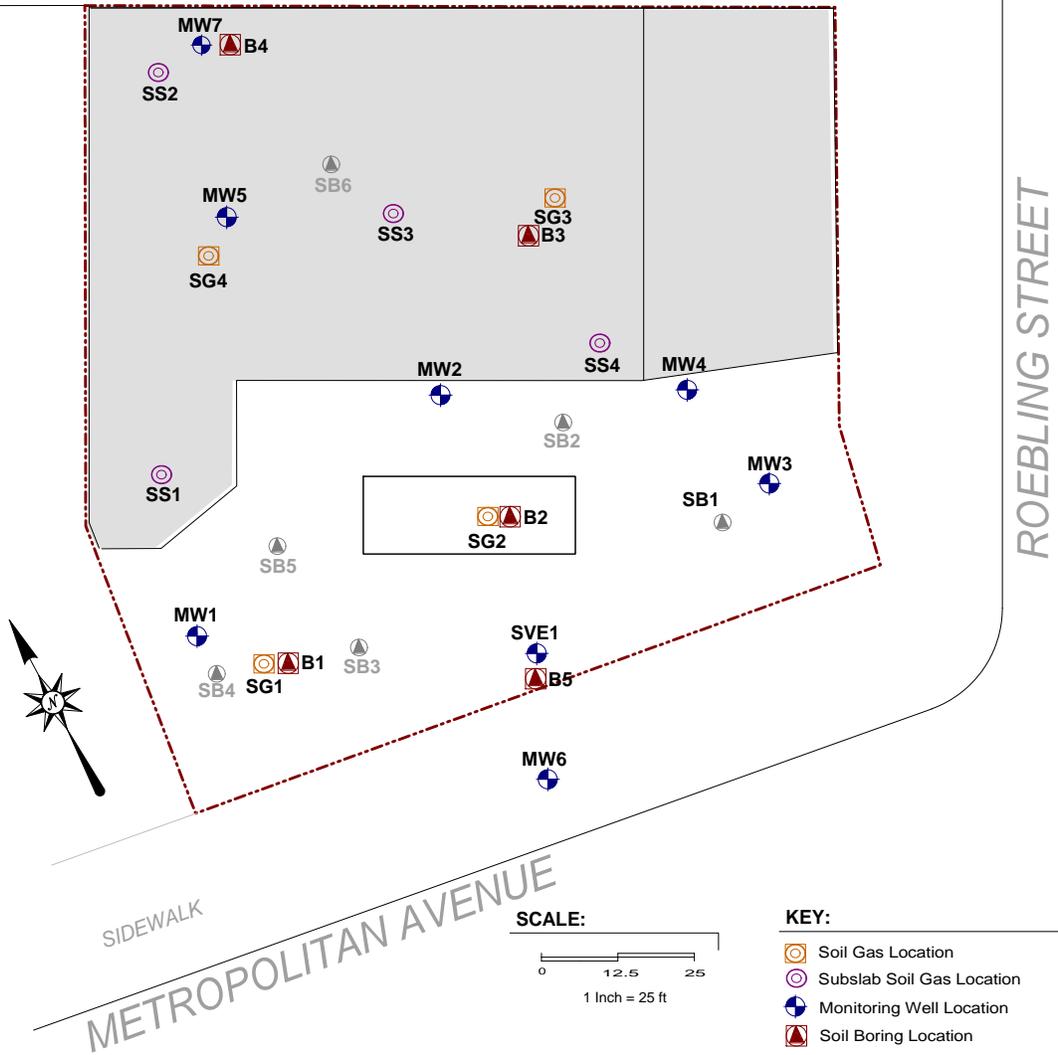
291 METROPOLITAN AVENUE, BROOKLYN, NY
 HAZARDOUS MATERIALS REMEDIAL INVESTIGATION REPORT



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 1808 MIDDLE COUNTRY ROAD, RIDGE, NEW YORK 11961
 PHONE: (631) 504-6000 FAX: (631) 924-2870

N. 4th STREET

SIDEWALK

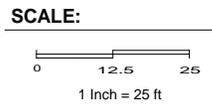


METROPOLITAN AVENUE

ROEBBLING STREET

KEY:

	Soil Gas Location
	Subslab Soil Gas Location
	Monitoring Well Location
	Soil Boring Location
	Previous Soil Boring Location

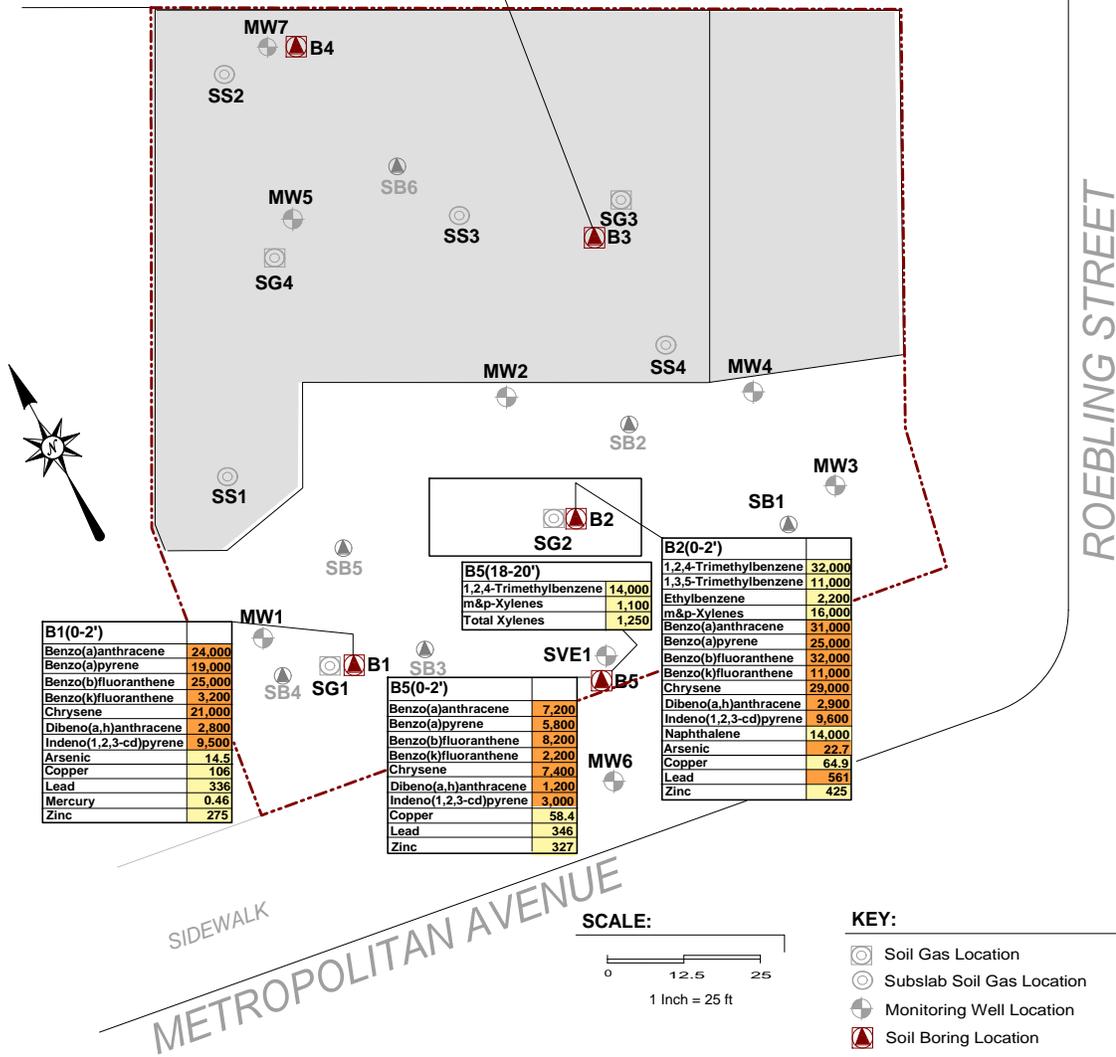


<p>ENVIRONMENTAL BUSINESS CONSULTANTS</p>	Phone 631.504.6000 Fax 631.924.2870	<p>FIGURE</p> <p>5</p>	SITE ADDRESS: 291 METROPOLITAN AVENUE BROOKLYN, NY
			DRAWING TITLE: SITE PLAN

N. 4th STREET

SIDEWALK

B3(0-2')	
Copper	70.9
Lead	518
Mercury	1.57
Zinc	145



B1(0-2')	
Benzo(a)anthracene	24,000
Benzo(a)pyrene	19,000
Benzo(b)fluoranthene	25,000
Benzo(k)fluoranthene	3,200
Chrysene	21,000
Diben(a,h)anthracene	2,800
Indeno(1,2,3-cd)pyrene	9,500
Arsenic	14.5
Copper	106
Lead	336
Mercury	0.46
Zinc	275

B5(18-20')	
1,2,4-Trimethylbenzene	14,000
m&p-Xylenes	1,100
Total Xylenes	1,250

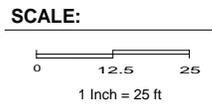
B5(0-2')	
Benzo(a)anthracene	7,200
Benzo(a)pyrene	5,800
Benzo(b)fluoranthene	8,200
Benzo(k)fluoranthene	2,200
Chrysene	7,400
Diben(a,h)anthracene	1,200
Indeno(1,2,3-cd)pyrene	3,000
Copper	58.4
Lead	346
Zinc	327

B2(0-2')	
1,2,4-Trimethylbenzene	32,000
1,3,5-Trimethylbenzene	11,000
Ethylbenzene	2,200
m&p-Xylenes	16,000
Benzo(a)anthracene	31,000
Benzo(a)pyrene	25,000
Benzo(b)fluoranthene	32,000
Benzo(k)fluoranthene	11,000
Chrysene	29,000
Diben(a,h)anthracene	2,900
Indeno(1,2,3-cd)pyrene	9,600
Naphthalene	14,000
Arsenic	22.7
Copper	64.9
Lead	561
Zinc	425

SIDEWALK

METROPOLITAN AVENUE

ROEBLING STREET



- KEY:**
- Soil Gas Location
 - Subslab Soil Gas Location
 - Monitoring Well Location
 - Soil Boring Location
 - Previous Soil Boring Location

METALS	ppm
VOCs	ppb
SVOCs	ppb

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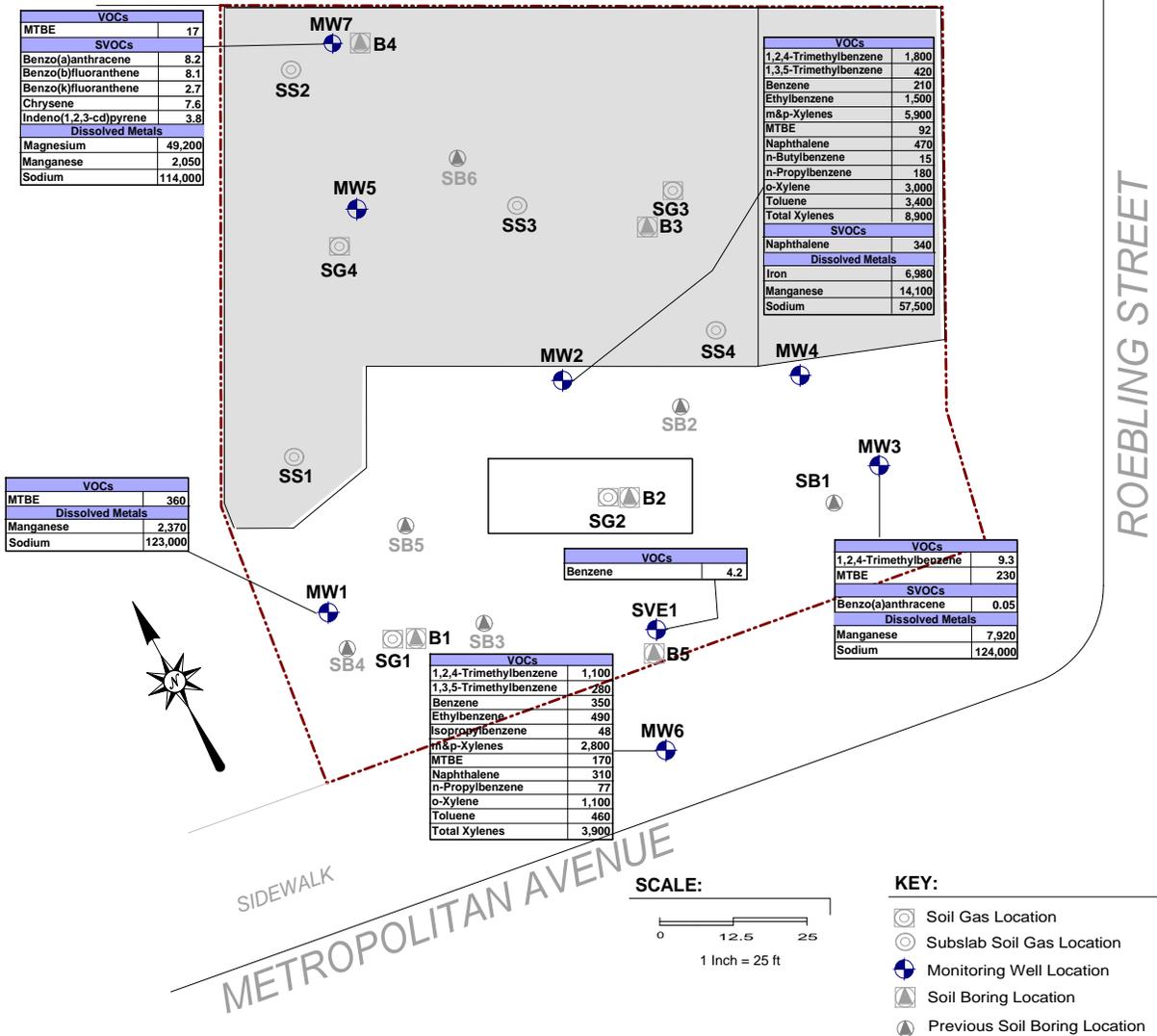
FIGURE
6

SITE ADDRESS: 291 METROPOLITAN AVENUE
 BROOKLYN, NY
 DRAWING TITLE: SOIL EXCEEDENCES MAP

N. 4th STREET

SIDEWALK

ROEBLING STREET



Phone 631.504.6000
Fax 631.924.2870

ENVIRONMENTAL BUSINESS CONSULTANTS

FIGURE

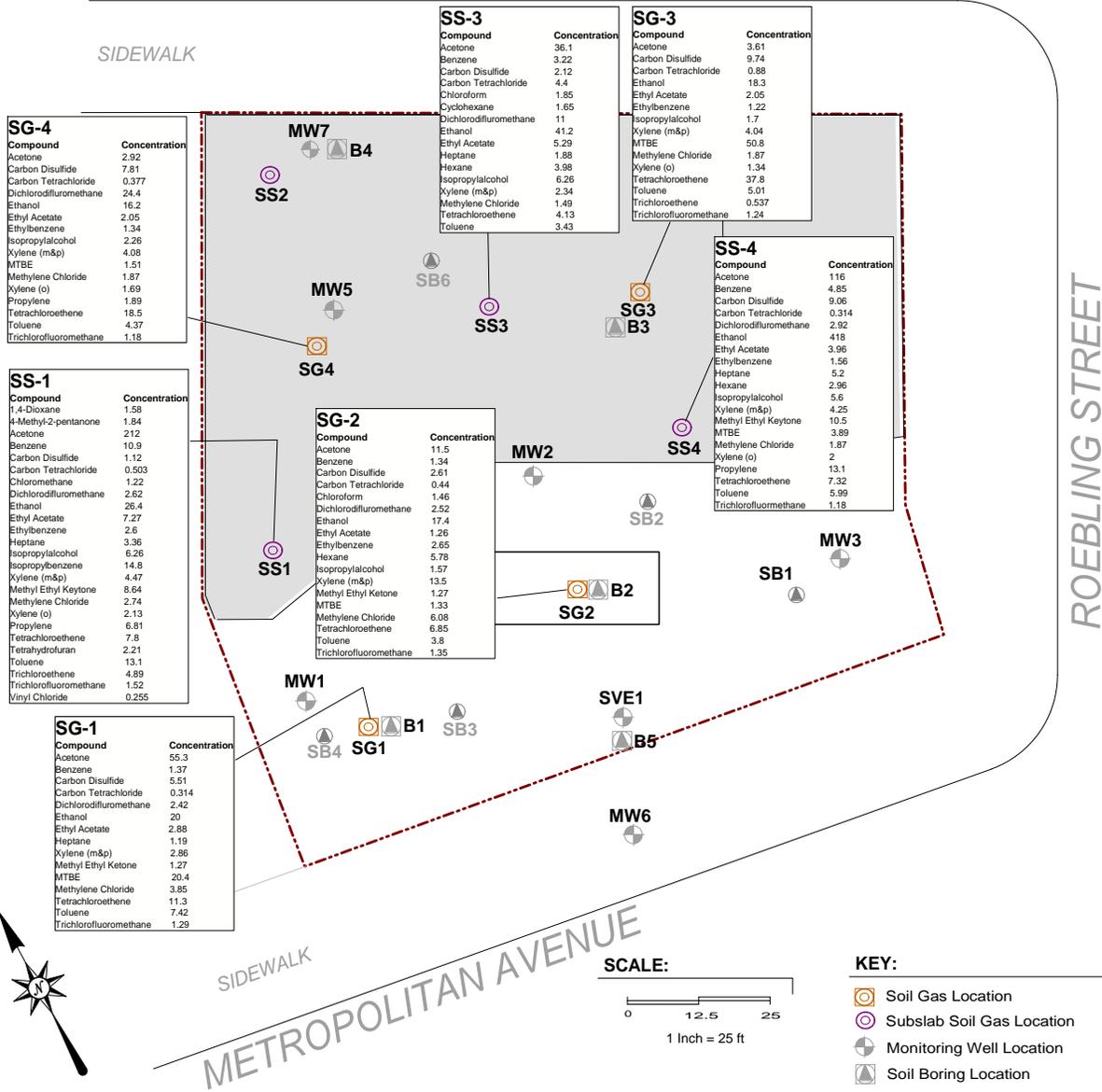
7

SITE ADDRESS: 291 METROPOLITAN AVENUE
BROOKLYN, NY

DRAWING TITLE: GROUNDWATER EXCEEDENCES MAP

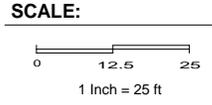
N. 4th STREET

SIDEWALK



ROEBLING STREET

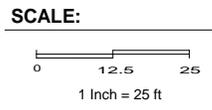
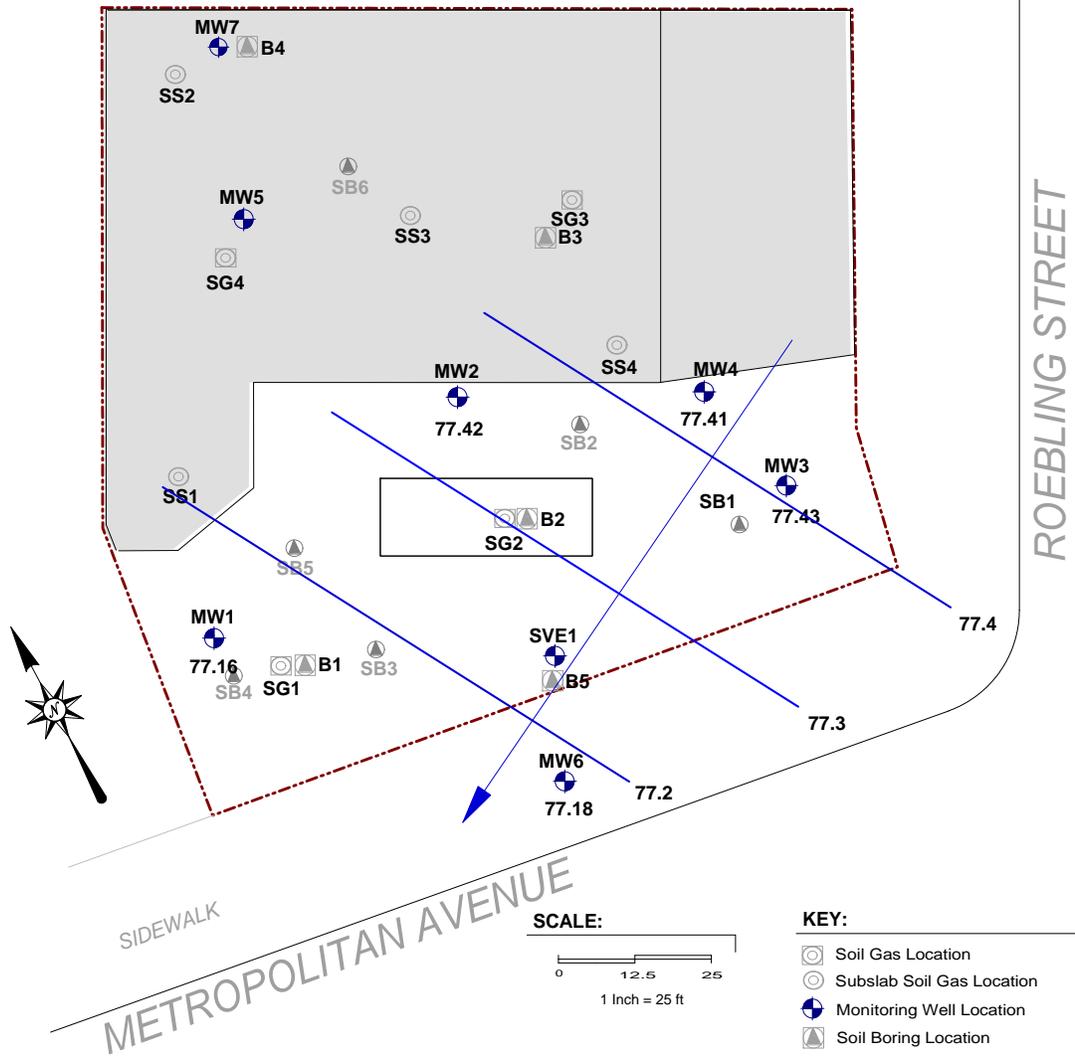
SIDEWALK
METROPOLITAN AVENUE



- KEY:**
- Soil Gas Location
 - Subslab Soil Gas Location
 - Monitoring Well Location
 - Soil Boring Location
 - Previous Soil Boring Location

N. 4th STREET

SIDEWALK



KEY:

	Soil Gas Location
	Subslab Soil Gas Location
	Monitoring Well Location
	Soil Boring Location
	Previous Soil Boring Location

<p>ENVIRONMENTAL BUSINESS CONSULTANTS</p>	<p>Phone 631.504.6000 Fax 631.924.2870</p>	<p>FIGURE 9</p>	<p>SITE ADDRESS: 291 METROPOLITAN AVENUE BROOKLYN, NY</p>
			<p>DRAWING TITLE: GROUNDWATER CONTOUR MAP</p>

ATTACHMENT A
PREVIOUS REPORTS

Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.



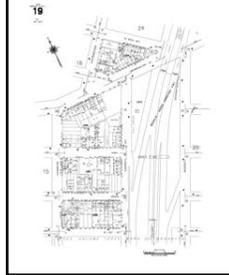
2007 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

2006 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

2005 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

2004 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

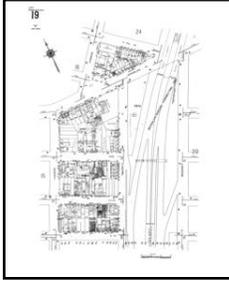
2003 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

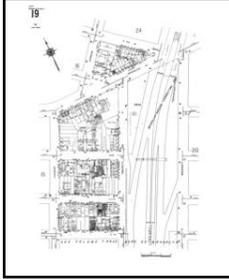
2002 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

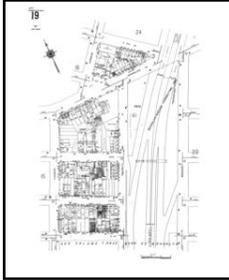
2001 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

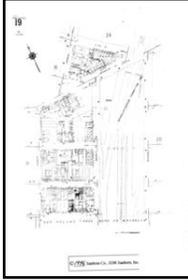
1996 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

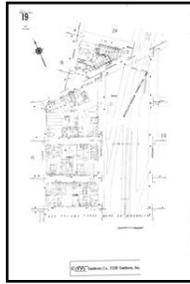
1995 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1993 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16

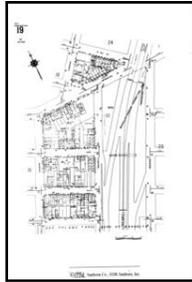


Volume 4, Sheet 19

1992 Source Sheets



Volume 4, Sheet 16



Volume 4, Sheet 19



Volume 4, Sheet 15

1991 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1989 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

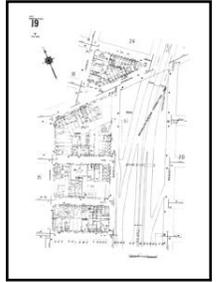
1988 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

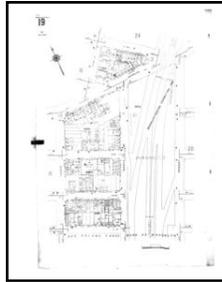
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Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

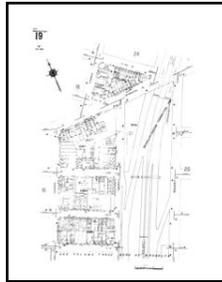
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Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

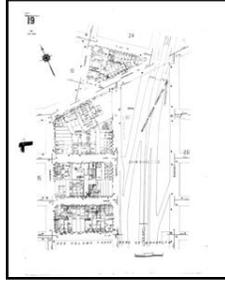
1983 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1982 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1981 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 16

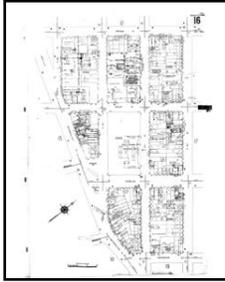


Volume 4, Sheet 19

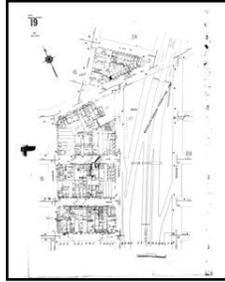
1980 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16

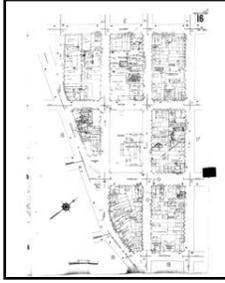


Volume 4, Sheet 19

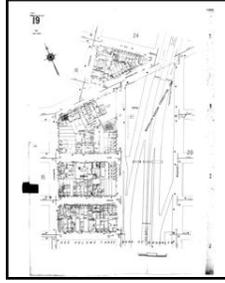
1979 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1978 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16

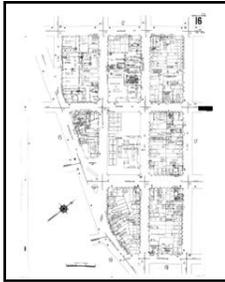


Volume 4, Sheet 19

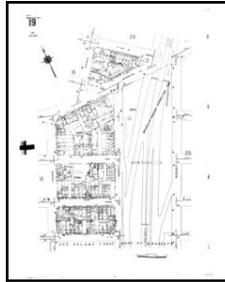
1965 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1951 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1942 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 19



Volume 4, Sheet 16

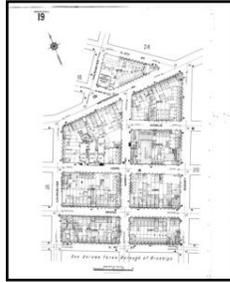
1916 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

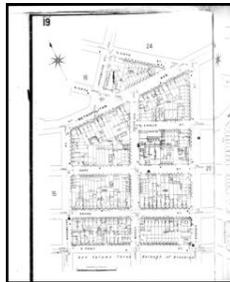
1905 Source Sheets



Volume 4, Sheet 15



Volume 4, Sheet 16



Volume 4, Sheet 19

1887 Source Sheets



Volume 4, Sheet 104



Volume 4, Sheet 104



Volume 4, Sheet 105



Volume 4, Sheet 105

2007 Certified Sanborn Map



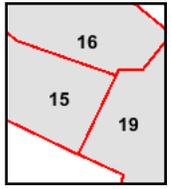
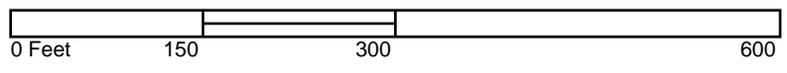
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2006 Certified Sanborn Map



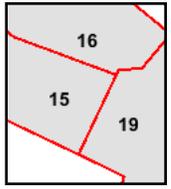
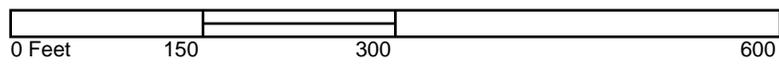
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2005 Certified Sanborn Map



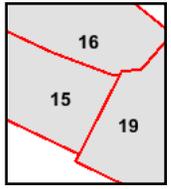
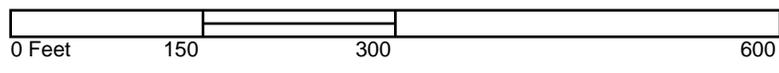
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2004 Certified Sanborn Map



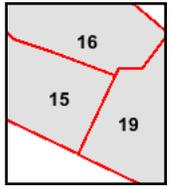
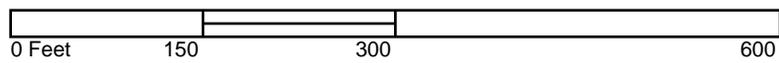
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2003 Certified Sanborn Map



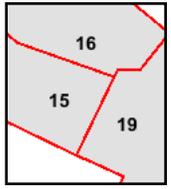
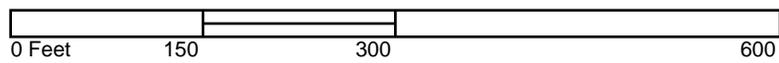
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2002 Certified Sanborn Map



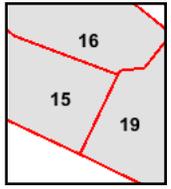
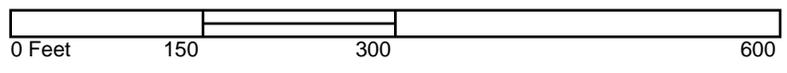
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2001 Certified Sanborn Map



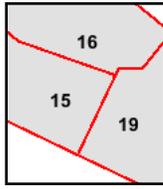
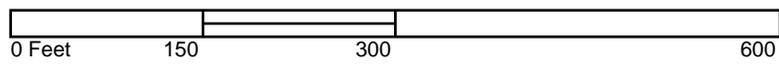
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1996 Certified Sanborn Map



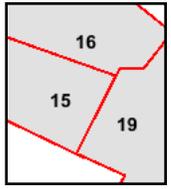
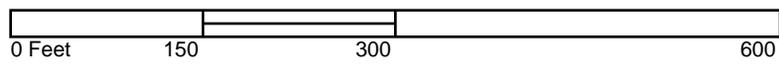
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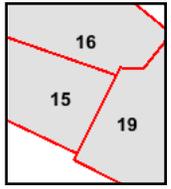
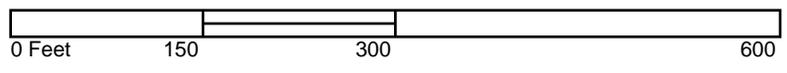
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1993 Certified Sanborn Map



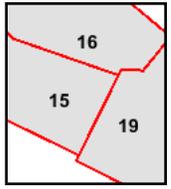
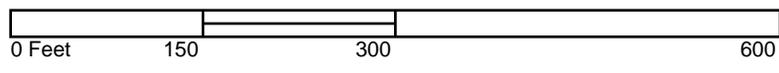
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1991 Certified Sanborn Map



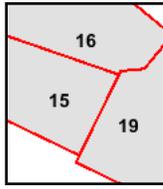
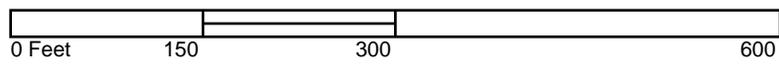
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1989 Certified Sanborn Map

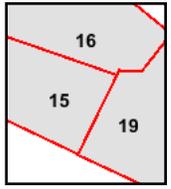
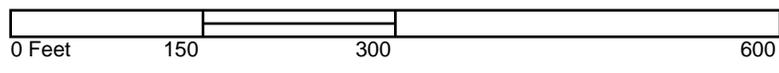
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1988 Certified Sanborn Map



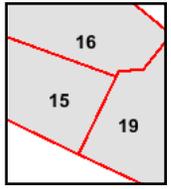
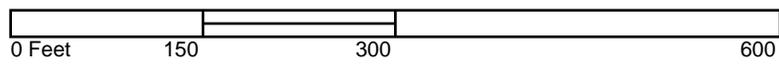
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1987 Certified Sanborn Map



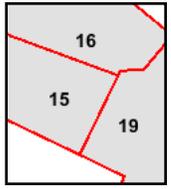
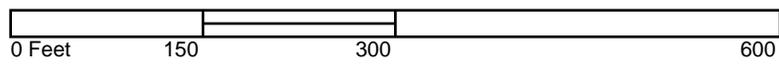
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1986 Certified Sanborn Map



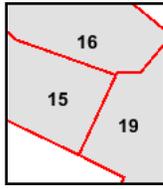
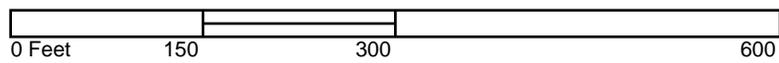
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1983 Certified Sanborn Map



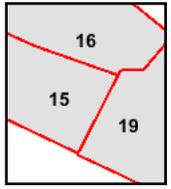
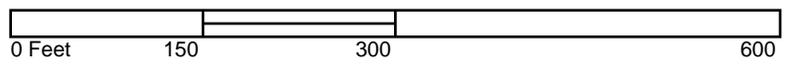
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1982 Certified Sanborn Map



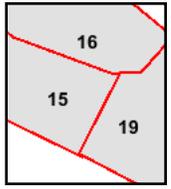
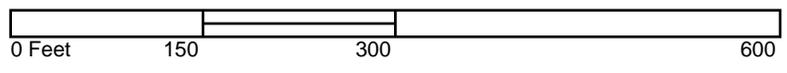
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1981 Certified Sanborn Map



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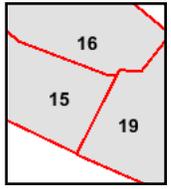
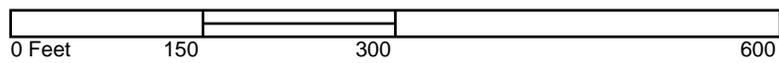
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1980 Certified Sanborn Map



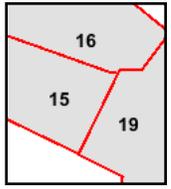
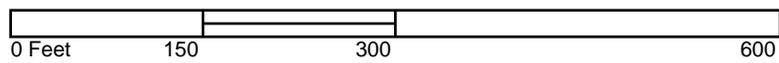
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1979 Certified Sanborn Map



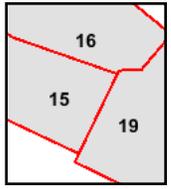
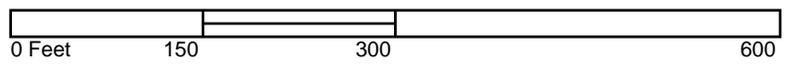
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1978 Certified Sanborn Map



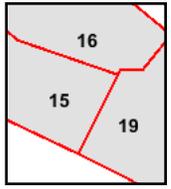
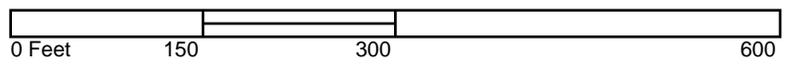
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1965 Certified Sanborn Map



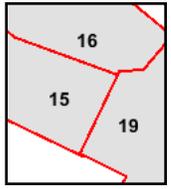
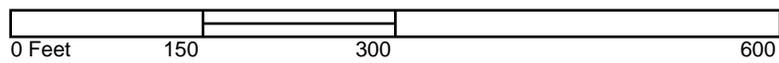
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1951 Certified Sanborn Map



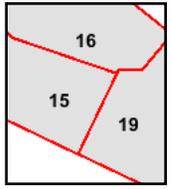
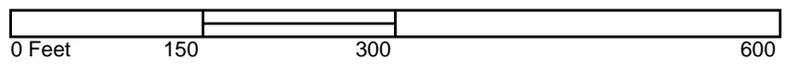
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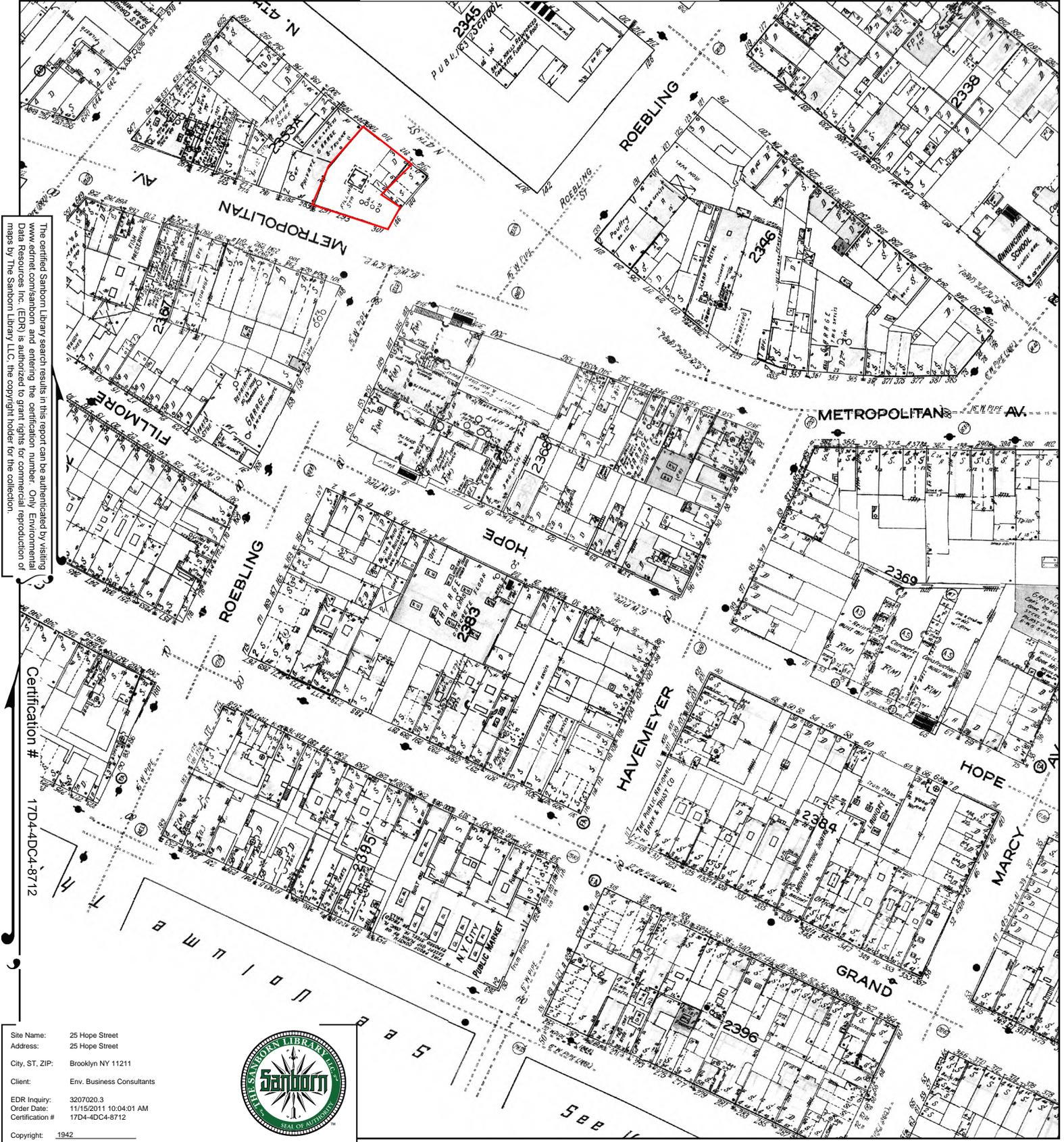
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1942 Certified Sanborn Map



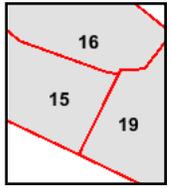
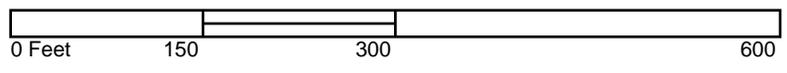
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1905 Certified Sanborn Map



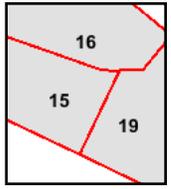
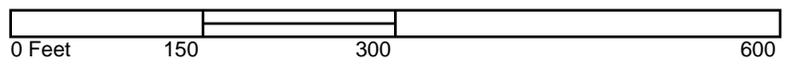
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 Copyright: 1905



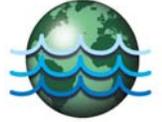
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P.W. GROSSER CONSULTING



July 30, 2010

Ms. Jerritte Hollinger
Mr. Ismael Cisneros
291 Metropolitan Avenue LLC.
291 Metropolitan Avenue
Brooklyn, New York 11211

Re: Phase II Environmental Site Assessment
291 Metropolitan Avenue, Brooklyn, New York

Dear Ms. Hollinger and Mr. Cisneros:

P.W. Grosser Consulting, Inc. (PWGC) has prepared this report to document the results of the Phase II Environmental Site Investigation (ESA) at the property located at 291 Metropolitan Avenue in Brooklyn, New York. The scope of service was based upon our proposal dated June 21, 2010 and a review of the October 2006 Investigation Summary Report prepared by Advanced Site Restoration, LLC (ASR) of New York, NY.

PROJECT BACKGROUND

The subject site is located at 291 Metropolitan Avenue in Brooklyn, New York. The property is currently owned and occupied by M. I. Mechanical Industries, Inc. Based upon our correspondence and a review of the ASR Investigation Summary Report, the property was formerly occupied by a gasoline filling station and an automotive repair facility. Several underground storage tanks (USTs), consisting of fuel oil, waste oil, and gasoline, were identified on the property. At the time of the ASR sampling, the property was operated as an automotive repair facility only and was not storing / disposing of motor fuels however, the condition / status of the tanks was unknown. It is assumed that the tanks are still present at the site.

To determine if subsurface soil / groundwater contamination existed at the site, ASR performed several soil and groundwater borings on the property. Subsurface soil contamination was identified in four of the borings performed in 2006 (SB-1, SB-3, SB-5, and SB-6) when compared to the New York State Department of Environmental Conservation (NYSDEC) Recommended Soil Clean-up Objectives (RSCOs) as specified in the Technical and Administrative Guidance Memorandum (TAGM) #4046.

A summary of the 2006 ASR investigation findings are as follows:

- Total volatile organic compounds (Total VOCs) identified in the soils ranged from non-detect levels (SB-1 & SB-4) to 49,300 µg/kg (SB-5),
- Semi-volatile organic compound (SVOC) impact above the TAGM RSCOs was identified in soil boring SB-5 only (Naphthalene 29,800 µg/kg),
- Soil boring SB-1, performed in the vicinity of the waste oil tank, was analyzed for metals as well. Elevated levels of Arsenic, Cadmium and Lead was identified in the shallow soil sample from that location,

- Elevated levels of VOCs was identified in the groundwater samples collected from the two groundwater borings performed at SB-2 (24,000 µg/L Total VOCs consisting entirely of MTBE) and SB-3 (4,011 µg/L Total VOCs).

Based upon the levels of contamination, ASR contacted the NYSDEC and spill # 06-07903 was assigned to the site.

Based upon information provided to PWGC, no further investigation / remediation has occurred at the site since the 2006 investigation and PWGC was retained to perform a Phase II inspection at the site in order to assess the current conditions.

Based upon a review of the Water-Table configuration of Kings and Queens Counties, Long Island, NY, (March 1997), the regional groundwater flow direction is towards the north-northwest toward the East River. Local groundwater flow direction was not evaluated in the ASR report.

SCOPE OF WORK

Subsurface Investigation

In order to assess the current conditions, PWGC duplicated portions of the 2006 investigation by performing four soil borings in the former SB-1, SB-3, SB-5, and SB-6 as shown on **Figure 1**. These locations were chosen due to identified impacts during the 2006 investigation. As identified on **Figure 1**, the soil borings were placed in the vicinity of the reported underground storage tanks (USTs), which are the likely source of the petroleum impacts at the site.

A track-mounted 6610DT Geoprobe™, supplied by Eastern Environmental Solutions, Inc (EES), was utilized to install the soil borings. At each boring location, PWGC collected soil samples continuously from ground surface to a depth of 20 feet below grade. A photoionization detector (PID) was used to characterize and field screen collected soils for the presence of VOCs. At each boring location, PWGC collected samples from depth corresponding to the 2006 sample depths. Boring logs showing PID readings and sample intervals are attached.

The depth to water beneath the site is approximately 18 to 20 feet below grade, which is comparable to the 2006 investigation. Since groundwater impact was identified in 2006 in only boring locations SB-2 and SB-3, PWGC collected groundwater samples from only these locations. In order to assess the overall groundwater quality at the site, groundwater samples from an up-gradient (SB-1) and down-gradient (SB-6), based upon regional groundwater flow direction, were collected as well. Following completion of the soil boring, a temporary one inch diameter PVC well with four feet of screen was inserted into the boring. The well was purged of approximately one gallon of water prior to sample collection.

Samples were stored in a cooler on ice and hand-delivered to Environmental Testing Laboratories, Inc. (ETL), a New York State Department of Health (NYSDOH) certified environmental laboratory. In order to compare recent data to the 2006 data, soil, from SB-3, SB-5 and SB-6, and groundwater samples were analyzed for VOCs by EPA method 8260 (STARS list) and semi-volatile organic compounds (SVOCs) by EPA method 8270 (STARS list). The soil sample from SB-1 was analyzed for metals only to re-assess metals detections from the 2006 investigation and based upon the lack of obvious petroleum impacts at SB-1 in 2006 and current field screening.

ANALYTICAL RESULTS

Soil Results

Soil sample analytical results were compared to the RSCOs contained in the NYSDEC TAGM #4046 guidance document.

As shown on **Table 1**, VOC and SVOC concentrations were below their respective RSCOs in the soil samples analyzed from SB-3, SB-5, and SB-6. In comparison to the data obtained during the 2006 investigation, these results indicated that soil impacts identified in 2006 are no longer present at these locations.

As shown on **Table 2**, mercury (0.54 µg/kg) was identified in SB-1 at a concentration above its respective Eastern USA Background concentration (0.001-0.2 µg/kg) as well as its respective RSCO (0.1 µg/kg). This concentration is higher than what was detected in 2006. Arsenic, cadmium and lead, which were detected at elevated concentrations in 2006, were detected below RSCOs in this most recent round.

The analytical report is included as **Appendix A**.

Groundwater Results

Groundwater sample analytical results were compared to the Class GA Groundwater Standards as specified in the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1.

As shown on **Table 3**, VOC and SVOC concentrations were not detected above their respective laboratory method detection limits in the groundwater sample from SB-6, the assumed down-gradient location.

Elevated VOC concentrations were detected above their respective groundwater quality standards in the groundwater sample from SB-1 (645 µg/L Total VOCs), the assumed up-gradient location. Elevated levels of VOCs were also detected in the groundwater sample from locations SB-2 (128,988 µg/L Total VOCs) and SB-3 (1,383 µg/L Total VOCs), both of which were located in the immediate vicinity of reported USTs.

One SVOC compound, Naphthalene, was identified above its respective groundwater quality standards (10 µg/L) in locations SB-2 (392 µg/L) and SB-3 (22.2 µg/L). No other SVOC compounds were detected above their respective groundwater quality standards.

In comparison to the data obtained during the 2006 investigation, total VOC concentrations were higher in 2010 than in 2006.

The analytical report is included as **Appendix A**.

CONCLUSIONS AND RECOMMENDATIONS

Four soil samples were collected from borings SB-1, SB-3, SB-5, and SB-6 in the vicinity of the samples collected during the 2006 ASR sub-surface investigation. The soil sample from SB-1 was analyzed for RCRA metals as it was near the waste oil UST. Mercury was detected at a concentration slightly greater than NYSDEC RSCOs and Eastern USA Background concentrations. Based upon the metals compounds detected in 2006 / 2010, as well as the soil conditions which are indicative of fill material (see boring logs), PWGC believes metals are originating from fill material and not related to site activities. Based upon this conclusion, further investigation of metals is not warranted at this time.

The soil samples from SB-3, SB-5, and SB-6 were analyzed for VOCs and SVOCs. The analytical results for the three samples were below NYSDEC RSCOs.

Due to the elevated concentrations of VOCs and SVOCs in the groundwater samples with the highest concentrations in the samples collected from the immediate vicinity of the tanks, petroleum impacts are still present at the site. Therefore closure of the NYSDEC spill is not warranted at this time. Based upon detectable levels, further investigation and remediation would be warranted before the NYSDEC would consider closure.

Based upon the proximity of high groundwater impacts to the tank area, the tanks are the likely source. Since it is unknown if the tanks still exist, it is recommended that a geophysical survey be performed to identify the absence / presence of the reported USTs. If USTs are identified, it is recommended that they be removed along with associated impacted soil. Following the removal of the tanks, groundwater monitoring wells would be required to monitor groundwater quality. Quarterly groundwater monitoring would likely be required until groundwater impacts attenuate or a sufficient decreasing trend is established. If decreasing trends are not achieved, additional remedial measures, such as a chemical injection to assist in the remediation of the impacted groundwater, may be required.

A proposal for the additional investigation can be submitted, upon your request.

Please call if you have any questions or would like to discuss your project further. I look forward to hearing from you.

Very truly yours,
P.W. Grosser Consulting, Inc.

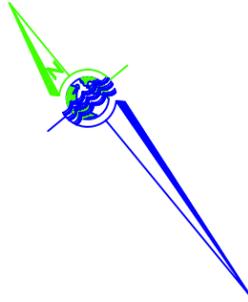


Rocky Wenskus
Senior Hydrogeologist



Bryan A. Devaux
Senior Project Manager

FIGURE



CONSULTANTS

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWINGS PREPARED FOR

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION

PROJECT:	MAB1001	APPROVED BY:	PWG
DESIGNED BY:	JL	DATE:	7/15/10
DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

**SITE PLAN
 W/ BORING LOCATIONS**

 291 METROPOLITAN AVE.
 BROOKLYN, NY

FIGURE NO
 1

SHEET
 1 OF 1

N 4th STREET

SIDEWALK

FUEL OIL

SB-6

BUILDING

AWNING

SIDEWALK

SB-2

PARKING LOT

WASTE OIL

SB-5

SB-1

GASOLINE TANK &
 FORMER PUMP
 ISLAND

SB-4

SB-3

SIDEWALK

ROEBLING STREET

METROPOLITAN AVENUE

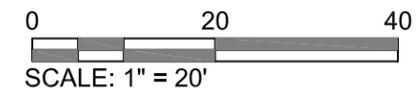
SITE PLAN W/ BORING LOCATIONS

SCALE: 1" = 20'

LEGEND

SB-1 ● BORING LOCATION

BASEMAP PROVIDED BY:
 GOOGLE EARTH



J:\Projects M-R\MAB\cad\Site plan.dwg Jul 30, 2010 10:18am By: guzman

TABLES

Table 1
291 Metropolitan Avenue, Brooklyn, NY

Soil Analytical Results

Compound	NYSDEC Clean-up Objectives ⁽¹⁾	SB-3 (17-19') 7/6/2010	SB-5 (16-18') 7/6/2010	SB-6 (13-15') 7/6/2010
Volatile Organic Compounds by 8260 (STARS) - ug/kg				
1,2,4-Trimethylbenzene	10,000	0.89 J	19.5 J	4.86 J
1,3,5-Trimethylbenzene	3,300	0.50 U	5.12 J	1.10 U
Benzene	60 or MDL	0.60 U	2.97 U	1.33 U
Ethyl Benzene	5,500	0.59 U	2.91 U	1.54 J
Isopropylbenzene	2,300	0.50 U	2.46 U	1.10 U
MTBE	120	0.59 U	2.91 U	1.31 U
Naphthalene(v)	13,000	1.03 J	8.18 J	1.60 J
n-Butylbenzene	10,000	0.54 U	8.40 J	1.20 U
n-Propylbenzene	3,700	0.52 U	2.58 U	1.15 U
o Xylene	1,200	0.44 U	2.18 U	2.35 J
p/m Xylene	1,200	1.02 U	7.50 J	8.30 J
p-Isopropyltoluene	10,000	0.53 U	3.44 J	1.18 U
sec-Butylbenzene	10,000	0.51 U	5.86 J	1.13 U
tert-Butylbenzene	10,000	0.60 U	2.97 U	1.33 U
Toluene	1,500	0.54 U	2.69 U	2.40 J
Semi-Volatile Organic Compounds by 8270 (STARS) - ug/kg				
Acenaphthene	50,000	47.6 U	47.1 U	52.9 U
Acenaphthylene	41,000	38.9 U	38.5 U	43.2 U
Anthracene	50,000	50.3 U	49.8 U	55.9 U
Benzo(a)anthracene	224 or MDL	47.9 U	47.4 U	53.1 U
Benzo(a)pyrene	61 or MDL	58.9 U	58.3 U	65.5 U
Benzo(b)fluoranthene	220 or MDL	46.9 U	46.5 U	52.1 U
Benzo(ghi)perylene	50,000	86.4 U	85.6 U	96.0 U
Benzo(k)fluoranthene	220 or MDL	86.1 U	85.2 U	95.6 U
Chrysene	400	59.8 U	59.2 U	66.5 U
Dibenzo(a,h)anthracene	14 or MDL	63.1 U	62.5 U	70.1 U
Fluoranthene	50,000	62.3 U	61.7 U	69.2 U
Fluorene	50,000	45.5 U	45.0 U	50.5 U
Indeno(1,2,3-cd)pyrene	3,200	52.3 U	51.7 U	58.0 U
Naphthalene(v)	13,000	70.8 J	45.0 U	50.5 U
Phenanthrene	50,000	51.5 U	5.90 J	57.2 U
Pyrene	50,000	41.9 U	41.4 U	46.5 U

Notes:

⁽¹⁾ NYSDEC Determination of Soil Cleanup Levels Memo, December 2000

⁽²⁾ Standard listed is different from ASR 2006 report which contained typos

NS - No standard

MDL - Method detection limit

U - The analytical result is not detected above the MDL

J - Indicates an estimated value

Bold/highlighted - indicated exceedance of the NYSDEC Cleanup Objectives

Table 2
291 Metropolitan Avenue, Brooklyn, NY

Soil Analytical Results

Compound	NYSDEC Clean-up Objectives ⁽¹⁾	Eastern USA Background ⁽²⁾	SB-1 (3-5') 7/6/2010
RCRA Metals in mg/kg			
Arsenic	7.5 or SB	3-12	0.83 U
Barium	300 or SB	15-600	95.7
Cadmium	1 or SB	0.1-1	0.28 U
Chromium	10 or SB	1.5-40	8.58
Lead	SB	200-500	244
Mercury	0.1	0.001-0.2	0.54
Selenium	2 or SB	0.1-3.9	0.69 U
Silver	SB	N/A	0.32 U

Notes:

⁽¹⁾ NYSDEC Recommended Soil Cleanup Objectives (RSCO), Technical and Administrative Guidance Memorandum (TAGM) #4046, 01/94

⁽²⁾ Eastern USA Site Background Levels, TAGM #4046, 01/94

SB - Site Background

N/A - Not Available

U - The analytical result is not detected above the Method Detection Limit (MDL)

Bold/highlighted text indicates exceedance of the Eastern USA Background

Table 3
291 Metropolitan Avenue, Brooklyn, NY

Groundwater Analytical Results

Compound	NYSDEC Groundwater Standards ⁽¹⁾	SB-1 GW	SB-2 GW	SB-3 GW	SB-6 GW
		7/6/2010	7/6/2010	7/6/2010	7/6/2010
Volatile Organic Compounds by 8260 (STARS list) - µg/L					
1,2,4-Trimethylbenzene	5	27.8	3,010	0.44 U	0.44 U
1,3,5-Trimethylbenzene	5	12.5	838 J	0.43 U	0.43 U
4-Isopropyltoluene	5	0.68 U	170 U	0.34 U	0.34 U
Benzene	1	58	1,560 J	3.73 J	0.43 U
Ethylbenzene	5	22.9	1,700 J	0.41 U	0.41 U
Isopropylbenzene	5	4.82 J	220 U	1.63 J	0.44 U
m&p-Xylene	5	41	5,130	9.35 J	0.86 U
MTBE	10 ⁽²⁾	421	112,000	1,370	0.50 U
Naphthalene	10	0.66 U	165 U	0.33 U	0.33 U
n-Butylbenzene	5	0.86 U	215 U	0.43 U	0.43 U
n-Propylbenzene	5	2.94 J	205 U	0.41 U	0.41 U
o-Xylene	5	43.7	2,910	3.16 U	0.37 U
sec-Butylbenzene	5	0.72 U	180 U	0.36 U	0.36 U
tert-Butylbenzene	5	0.88 U	220 U	0.44 U	0.44 U
Toluene	5	13.3	1,840 J	0.45 U	0.45 U
Total VOCs		645	128,988	1,383	0
Semi-Volatile Organic Compounds by 8270 (STARS list) - µg/L					
Acenaphthene	20	1.36 U	1.13 U	6.87 J	1.46 U
Acenaphthylene	50 ⁽²⁾	1.24 U	1.03 U	1.55 U	1.33 U
Anthracene	50	1.12 U	0.93 U	3.94 J	1.20 U
Benzo(a)anthracene	0.002	1.37 U	1.14 U	1.72 U	1.47 U
Benzo(a)pyrene	ND	1.21 U	1.01 U	1.52 U	1.30 U
Benzo(b)fluoranthene	0.002	1.23 U	1.02 U	1.53 U	1.31 U
Benzo(g,h,i)perylene	5 ⁽³⁾	1.40 U	1.17 U	1.75 U	1.50 U
Benzo(k)fluoranthene	0.002	1.39 U	1.16 U	1.73 U	1.49 U
Chrysene	0.002	1.27 U	1.06 U	1.58 U	1.36 U
Dibenzo(a,h)anthracene	50 ⁽²⁾	1.16 U	0.97 U	1.45 U	1.24 U
Fluoranthene	50	1.15 U	0.96 U	4.52 J	1.23 U
Fluorene	50	1.21 U	1.01 U	7.13 J	1.30 U
Indeno(1,2,3-cd)pyrene	0.002	1.27 U	1.06 U	1.58 U	1.36 U
Naphthalene	10	1.16 U	392	22.2	1.24 U
Phenanthrene	50	1.20 U	1.10 J	24.9	1.29 U
Pyrene	50	1.35 U	1.12 U	3.83 J	1.44 U

Notes:

⁽¹⁾ NYSDEC Ambient Water Quality Standards and Guidance Values 6/1998

⁽²⁾ NYSDEC Ambient Water Quality Standards and Guidance Values 6/1998, April 2000 addendum

⁽³⁾ NYSDEC Determination of Soil Cleanup Objectives Memo, December 2000

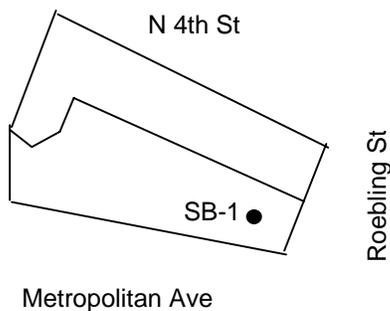
Bold/highlighted - Indicates exceedance of the NYSDEC Groundwater Standard

U - The analytical result is not detected above the Method Detection Limit (MDL). All MDLs are lower than the lowest calibration standard concentration

J - Indicates an estimated value. The concentration reported was between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL)

BORING LOGS

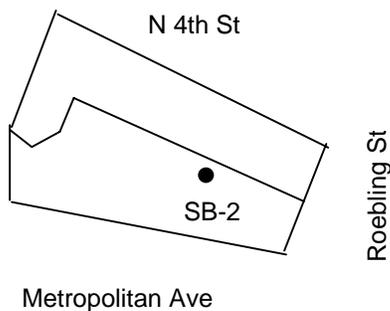
P.W. GROSSER
CONSULTING, INC.



Approximate borehole locations at site

Boring # SB-1	MW#	Page 1	of 5
PROJECT: 291 Metropolitan Ave, Brooklyn			
JOB # MAB1001			
LOGGED BY:	JLL	PRJ. MNGR.:	RWW
DRILLING CONTRACTOR: Eastern Environmental Solutions			
DRILL METHOD: Geoprobe			
DRILLER: Josh and Greg			
Borehole diameter/drill bit type:		total depth	20'
Macrocore (1" diameter)		elevation	
HAMMER WT:		DROP:	
START TIME:		DATE: 7/6/2010	
COMPLETION TIME:		DATE: 7/6/2010	
BACKFILL TIME:		DATE:	

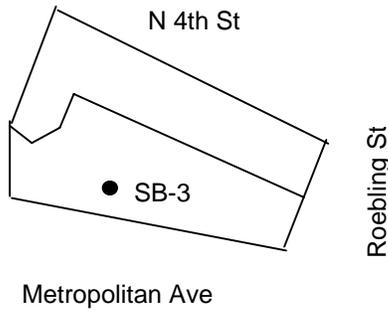
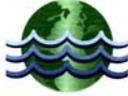
Sample Depth	Advance (ft)	Recovered (ft)	Soil Description Unified Soil Classification System	Notes	Casing depth: Screen depth:
0-5'	5	2.5	0.25' of concrete. 1' of dark brown silty sand, dry, few pebbles. 1.25' of medium brown silty sand, dry, few pebbles and brick.	PID --> 56.1 ppm PID --> 65.2 ppm	
5-10'	5	3	1.75' of medium brown medium grained sand, dry, few pebbles and brick. 1.25' of medium brown silty clay, moist, no pebbles.	PID --> 50.6 ppm	
10-15'	5	4	1' of light brown medium grained sand, dry, no pebbles. 2' of light brown clay, moist, no pebbles. 1' light brown clay, moist, pebbles.		
15-20'	5	4.5	4' of light brown silty clay, very moist, no pebbles, no odor. 0.5' of medium brown medium grained sand, wet, no pebbles, no odor.		
				Collected soil sample (3-5'), groundwater sample (18-23')	



Approximate borehole locations at site

Boring # SB-2	MW#	Page 2	of 5
PROJECT: 291 Metropolitan Ave, Brooklyn			
JOB # MAB1001			
LOGGED BY:	JLL	PRJ. MNGR.:	RWW
DRILLING CONTRACTOR: Eastern Environmental Solutions			
DRILL METHOD: Geoprobe			
DRILLER: Josh and Greg			
Borehole diameter/drill bit type:	total depth	20'	
Macrocore (1" diameter)	elevation		
HAMMER WT:	DROP:		
START TIME:	DATE: 7/6/2010		
COMPLETION TIME:	DATE: 7/6/2010		
BACKFILL TIME:	DATE:		

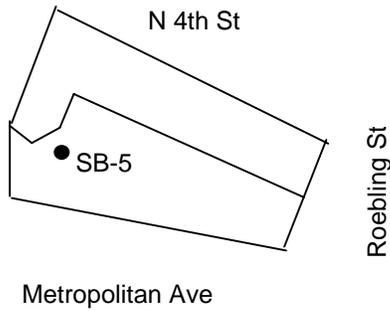
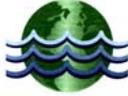
Sample Depth	Advance (ft)	Recovered (ft)	Soil Description Unified Soil Classification System	Notes	Casing depth: Screen depth:
0-5'	5	2	2' of fill material (brick, concrete) with brown medium grained sand, dry, some pebbles.	PID --> 426ppm	
5-10'	5	4.5	1' of light brown clayey silt, dry, no pebbles. 2' of light brown silty sand, dry, no pebbles. 1' of light brown silt, dry, no pebbles. 0.5' of light brown clay, dry, no pebbles.	PID --> 972 ppm PID --> 715 ppm	
10-15'	5	3.5	1.5' of light brown clay, moist, no pebbles. 2' of light brown silty sand, dry, few pebbles, slight odor.	PID --> 447 ppm PID --> 414 ppm	
15-20'	5	3	1' of light brown medium grained sand, dry, no pebbles. 1' of light brown silty sand, moist, no pebbles, slight petroleum odor. 1' of dark brown medium grained sand, wet, no pebbles, strong petroleum odor.	PID --> 380 ppm PID --> 656 ppm	
					Collected groundwater sample (18-23').



Approximate borehole locations at site

Boring # SB-3	MW#	Page 3	of 5
PROJECT: 291 Metropolitan Ave, Brooklyn			
JOB # MAB1001			
LOGGED BY:	JLL	PRJ. MNGR.:	RWW
DRILLING CONTRACTOR: Eastern Environmental Solutions			
DRILL METHOD: Geoprobe			
DRILLER: Josh and Greg			
Borehole diameter/drill bit type:	total depth	20'	
Macrocore (1" diameter)	elevation		
HAMMER WT:	DROP:		
START TIME:	DATE: 7/6/2010		
COMPLETION TIME:	DATE: 7/6/2010		
BACKFILL TIME:	DATE:		

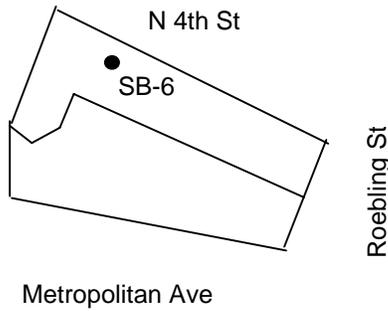
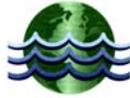
Sample Depth	Advance (ft)	Recovered (ft)	Soil Description Unified Soil Classification System	Notes	Casing depth: Screen depth:
0-5'	5	2.5	1' of drak brown/black silty sand, slightly moist, few pebbles, petroleum odor. 1.5' of medium brown medium grained sand and fill material, dry, pebbles, no odor.	PID --> 558 ppm PID --> 283 ppm	
5-10'	5	2.5	0.5' of fill material. 2' of medium brown sand/silt/clay mix, dry, few pebbles, no odor.		
10-15'	5	4	1.5' of medium brown medium grained sand, moist, few pebbles. 1' of medium brown clay, moist, few pebbles. 1.5' of reddish-bornw medium grained sand, slightly moist, few pebbles.		
15-20'	5	4.5	2' of reddish-bornw medium grained sand, slightly moist, few pebbles. 1.75' of medium brown with some darker discoloration silty clay, moist, few pebbles. 0.75' of medium brown silty clay, moist, few pebbles.	PID --> 255 ppm	
				Collected soil sample (17-19'), groundwater sample (18-23')	



Approximate borehole locations at site

Boring # SB-5	MW#	Page 4	of 5
PROJECT: 291 Metropolitan Ave, Brooklyn			
JOB # MAB1001			
LOGGED BY:	JLL	PRJ. MNGR.:	RWW
DRILLING CONTRACTOR: Eastern Environmental Solutions			
DRILL METHOD: Geoprobe			
DRILLER: Josh and Greg			
Borehole diameter/drill bit type:	total depth	20'	
Macrocore (1" diameter)	elevation		
HAMMER WT:	DROP:		
START TIME:	DATE: 7/6/2010		
COMPLETION TIME:	DATE: 7/6/2010		
BACKFILL TIME:	DATE:		

Sample Depth	Advance (ft)	Recovered (ft)	Soil Description Unified Soil Classification System	Notes	Casing depth: Screen depth:
0-5'	5	2.5	0.5' of concrete. 2' of medium brown silty clay, dry, few pebbles.		
5-10'	5	3	3' of light gray silty clay, dry, few pebbles.		
10-15'	5	4.5	4.5' of light gray to medium brown silt, few pebbles, dry.	PID --> 41.20 ppm PID --> 68.4 ppm	
15-20'	5	4	4' of medium brown silt to silty clay, slightly moist, few pebbles, slight petroleum odor from 16-18'	PID --> 121 ppm	
				Collected soil sample (16-18')	



Approximate borehole locations at site

Boring # SB-6	MW#	Page 5	of 5
PROJECT: 291 Metropolitan Ave, Brooklyn			
JOB # MAB1001			
LOGGED BY:	JLL	PRJ. MNGR.:	RWW
DRILLING CONTRACTOR: Eastern Environmental Solutions			
DRILL METHOD: Geoprobe			
DRILLER: Josh and Greg			
Borehole diameter/drill bit type:		total depth	20'
Macrocore (1" diameter)		elevation	
HAMMER WT:		DROP:	
START TIME:		DATE: 7/6/2010	
COMPLETION TIME:		DATE: 7/6/2010	
BACKFILL TIME:		DATE:	

Sample Depth	Advance (ft)	Recovered (ft)	Soil Description Unified Soil Classification System	Notes	Casing depth: Screen depth:
0-5'	5	2.5	0.5' of concrete and brick. 1.75' of medium brown medium grained sand, dry, brick, many pebbles. 0.25' of medium brown fine grained sand, dry, no pebbles.		
5-10'	5	5	1' of medium brown fine grained sand, dry, no pebbles. 3.5' of medium to dark brown silty clay, dry, no pebbles. 0.5' of medium brown fine grained sand, dry, no pebbles.		
10-15'	5	4	4' of medium brown silty clay, dry, scarce pebbles.	PID --> 60.3 ppm PID --> 50.3 ppm	
15-20'	5	3.5	0.5' of medium brown silt, dry, scarce pebbles. 3' of medium brown silty clay, wet, no odor, few pebbles.		
				Collected soil sample (13-15'), groundwater sample (16-21')	

**APPENDIX A
ANALYTICAL RESULTS**

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

7/19/2010

Laboratory Identifier: 1007066

Received: 7/7/2010 11:10

Sampled by: Jennifer Lewis

Client: PW Grosser Consulting Engineers PC

630 Johnson Avenue - Suite 7
Bohemia,
NY 11716-2618

Project: MAB1001

291 Metropolitan Ave
Brooklyn,
NY

Manager: Rocky Wenkus

Respectfully submitted,



Technical Director

NYS Lab ID # 10969

NJ Cert. # 73812

CT Cert. # PH0645

MA Cert. # NY061

PA Cert. #002

The information contained in this report is confidential and intended only for the use of the client listed above. This report shall not be reproduced, except in full, without the written consent of Environmental Testing Laboratories, Inc. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY.



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

7/19/2010

STARS Volatile Compounds by SW 846 8260

Sample: 1007066-1

Client Sample ID: SB-1 GW

Collected: 7/6/2010 11:00

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 7/12/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
95-63-6	1,2,4-Trimethylbenzene	C3613-3741	0.88	27.8	ug/L	
108-67-8	1,3,5-Trimethylbenzene	C3613-3741	0.86	12.5	ug/L	
71-43-2	Benzene	C3613-3741	0.86	58.0	ug/L	
100-41-4	Ethylbenzene	C3613-3741	0.82	22.9	ug/L	
98-82-8	Isopropylbenzene	C3613-3741	0.88	4.82	ug/L	J
108-38-3	m,p-xylene	C3613-3741	1.72	41.0	ug/L	
1634-04-4	MTBE	C3613-3745	10.0	421	ug/L	
104-51-8	n-Butylbenzene	C3613-3741	0.86	0.86	ug/L	U
103-65-1	n-Propylbenzene	C3613-3741	0.82	2.94	ug/L	J
91-20-3	Naphthalene	C3613-3741	0.66	0.66	ug/L	U
95-47-6	o-xylene	C3613-3741	0.74	43.7	ug/L	
99-87-6	p-Isopropyltoluene	C3613-3741	0.68	0.68	ug/L	U
135-98-8	sec-Butylbenzene	C3613-3741	0.72	0.72	ug/L	U
98-06-6	tert-Butylbenzene	C3613-3741	0.88	0.88	ug/L	U
108-88-3	Toluene	C3613-3741	0.90	13.3	ug/L	
1330-20-7	Xylenes(Total)	C3613-3741	1.72	84.6	ug/L	

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	C3613-3741	101.0 %	(69 - 129)	
460-00-4	4-BROMOFLUOROBENZENE	C3613-3741	102.0 %	(86 - 110)	
4774-33-8	DIBROMOFLUOROMETHANE	C3613-3741	104.0 %	(82 - 114)	
2037-26-5	TOLUENE-D8	C3613-3741	98.9 %	(92 - 107)	
17060-07-0	1,2-DICHLOROETHANE-D4	C3613-3745	103.0 %	(69 - 129)	
460-00-4	4-BROMOFLUOROBENZENE	C3613-3745	101.0 %	(86 - 110)	
4774-33-8	DIBROMOFLUOROMETHANE	C3613-3745	103.0 %	(82 - 114)	
2037-26-5	TOLUENE-D8	C3613-3745	101.0 %	(92 - 107)	



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7/19/2010

STARS Volatile Compounds by SW 846 8260

Sample: 1007066-2

Client Sample ID: SB-2 GW

Collected: 7/6/2010 10:00

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 7/12/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
95-63-6	1,2,4-Trimethylbenzene	C3613-3742	220	3010	ug/L	
108-67-8	1,3,5-Trimethylbenzene	C3613-3742	215	838	ug/L	J
71-43-2	Benzene	C3613-3742	215	1560	ug/L	J
100-41-4	Ethylbenzene	C3613-3742	205	1700	ug/L	J
98-82-8	Isopropylbenzene	C3613-3742	220	220	ug/L	U
108-38-3	m,p-xylene	C3613-3742	430	5130	ug/L	
1634-04-4	MTBE	C3613-3746	2500	112000	ug/L	
104-51-8	n-Butylbenzene	C3613-3742	215	215	ug/L	U
103-65-1	n-Propylbenzene	C3613-3742	205	205	ug/L	U
91-20-3	Naphthalene	C3613-3742	165	165	ug/L	U
95-47-6	o-xylene	C3613-3742	185	2910	ug/L	
99-87-6	p-Isopropyltoluene	C3613-3742	170	170	ug/L	U
135-98-8	sec-Butylbenzene	C3613-3742	180	180	ug/L	U
98-06-6	tert-Butylbenzene	C3613-3742	220	220	ug/L	U
108-88-3	Toluene	C3613-3742	225	1840	ug/L	J
1330-20-7	Xylenes(Total)	C3613-3742	430	8040	ug/L	

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	C3613-3742	105.0 %	(69 - 129)	
460-00-4	4-BROMOFLUOROBENZENE	C3613-3742	102.0 %	(86 - 110)	
4774-33-8	DIBROMOFLUOROMETHANE	C3613-3742	104.0 %	(82 - 114)	
2037-26-5	TOLUENE-D8	C3613-3742	102.0 %	(92 - 107)	
17060-07-0	1,2-DICHLOROETHANE-D4	C3613-3746	103.0 %	(69 - 129)	
460-00-4	4-BROMOFLUOROBENZENE	C3613-3746	100.0 %	(86 - 110)	
4774-33-8	DIBROMOFLUOROMETHANE	C3613-3746	102.0 %	(82 - 114)	
2037-26-5	TOLUENE-D8	C3613-3746	102.0 %	(92 - 107)	



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7/19/2010

STARS Volatile Compounds by SW 846 8260

Sample: 1007066-3

Client Sample ID: SB-3 GW

Collected: 7/6/2010 12:30

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 7/8/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
95-63-6	1,2,4-Trimethylbenzene	C3611-3706	0.44	0.44	ug/L	U
108-67-8	1,3,5-Trimethylbenzene	C3611-3706	0.43	0.43	ug/L	U
71-43-2	Benzene	C3611-3706	0.43	3.73	ug/L	J
100-41-4	Ethylbenzene	C3611-3706	0.41	0.41	ug/L	U
98-82-8	Isopropylbenzene	C3611-3706	0.44	1.63	ug/L	J
108-38-3	m,p-xylene	C3611-3706	0.86	9.35	ug/L	J
1634-04-4	MTBE	C3613-3744	5.00	1370	ug/L	
104-51-8	n-Butylbenzene	C3611-3706	0.43	0.43	ug/L	U
103-65-1	n-Propylbenzene	C3611-3706	0.41	0.41	ug/L	U
91-20-3	Naphthalene	C3611-3706	0.33	0.33	ug/L	U
95-47-6	o-xylene	C3611-3706	0.37	3.16	ug/L	J
99-87-6	p-Isopropyltoluene	C3611-3706	0.34	0.34	ug/L	U
135-98-8	sec-Butylbenzene	C3611-3706	0.36	0.36	ug/L	U
98-06-6	tert-Butylbenzene	C3611-3706	0.44	0.44	ug/L	U
108-88-3	Toluene	C3611-3706	0.45	0.45	ug/L	U
1330-20-7	Xylenes(Total)	C3611-3706	0.86	12.5	ug/L	J

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	C3611-3706	98.7 %	(69 - 129)	
460-00-4	4-BROMOFLUOROBENZENE	C3611-3706	102.0 %	(86 - 110)	
4774-33-8	DIBROMOFLUOROMETHANE	C3611-3706	100.0 %	(82 - 114)	
2037-26-5	TOLUENE-D8	C3611-3706	100.0 %	(92 - 107)	
17060-07-0	1,2-DICHLOROETHANE-D4	C3613-3744	101.0 %	(69 - 129)	
460-00-4	4-BROMOFLUOROBENZENE	C3613-3744	101.0 %	(86 - 110)	
4774-33-8	DIBROMOFLUOROMETHANE	C3613-3744	105.0 %	(82 - 114)	
2037-26-5	TOLUENE-D8	C3613-3744	101.0 %	(92 - 107)	



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7/19/2010

STARS Volatile Compounds by SW 846 8260

Sample: 1007066-4

Client Sample ID: SB-6 GW

Collected: 7/6/2010 14:20

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 7/8/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
95-63-6	1,2,4-Trimethylbenzene	C3611-3707	0.44	0.44	ug/L	U
108-67-8	1,3,5-Trimethylbenzene	C3611-3707	0.43	0.43	ug/L	U
71-43-2	Benzene	C3611-3707	0.43	0.43	ug/L	U
100-41-4	Ethylbenzene	C3611-3707	0.41	0.41	ug/L	U
98-82-8	Isopropylbenzene	C3611-3707	0.44	0.44	ug/L	U
108-38-3	m,p-xylene	C3611-3707	0.86	0.86	ug/L	U
1634-04-4	MTBE	C3611-3707	0.50	0.50	ug/L	U
104-51-8	n-Butylbenzene	C3611-3707	0.43	0.43	ug/L	U
103-65-1	n-Propylbenzene	C3611-3707	0.41	0.41	ug/L	U
91-20-3	Naphthalene	C3611-3707	0.33	0.33	ug/L	U
95-47-6	o-xylene	C3611-3707	0.37	0.37	ug/L	U
99-87-6	p-Isopropyltoluene	C3611-3707	0.34	0.34	ug/L	U
135-98-8	sec-Butylbenzene	C3611-3707	0.36	0.36	ug/L	U
98-06-6	tert-Butylbenzene	C3611-3707	0.44	0.44	ug/L	U
108-88-3	Toluene	C3611-3707	0.45	0.45	ug/L	U
1330-20-7	Xylenes(Total)	C3611-3707	0.86	0.86	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	C3611-3707	98.8 %	(69 - 129)	
460-00-4	4-BROMOFLUOROBENZENE	C3611-3707	102.0 %	(86 - 110)	
4774-33-8	DIBROMOFLUOROMETHANE	C3611-3707	103.0 %	(82 - 114)	
2037-26-5	TOLUENE-D8	C3611-3707	99.3 %	(92 - 107)	



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7/19/2010

STARS Volatile Compounds by SW 846 8260

Sample: 1007066-9

Client Sample ID: SB-3 (17-19')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 7/12/2010

Type: Grab

Collected: 7/7/2010 11:40

% Solid: 88.4%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
95-63-6	1,2,4-Trimethylbenzene	B3103-3091	0.42	0.89	ug/Kg	J
108-67-8	1,3,5-Trimethylbenzene	B3103-3091	0.50	0.50	ug/Kg	U
71-43-2	Benzene	B3103-3091	0.60	0.60	ug/Kg	U
100-41-4	Ethylbenzene	B3103-3091	0.59	0.59	ug/Kg	U
98-82-8	Isopropylbenzene	B3103-3091	0.50	0.50	ug/Kg	U
108-38-3	m,p-xylene	B3103-3091	1.02	1.02	ug/Kg	U
1634-04-4	MTBE	B3103-3091	0.59	0.59	ug/Kg	U
104-51-8	n-Butylbenzene	B3103-3091	0.54	0.54	ug/Kg	U
103-65-1	n-Propylbenzene	B3103-3091	0.52	0.52	ug/Kg	U
91-20-3	Naphthalene	B3103-3091	0.51	1.03	ug/Kg	J
95-47-6	o-xylene	B3103-3091	0.44	0.44	ug/Kg	U
99-87-6	p-Isopropyltoluene	B3103-3091	0.53	0.53	ug/Kg	U
135-98-8	sec-Butylbenzene	B3103-3091	0.51	0.51	ug/Kg	U
98-06-6	tert-Butylbenzene	B3103-3091	0.60	0.60	ug/Kg	U
108-88-3	Toluene	B3103-3091	0.54	0.54	ug/Kg	U
1330-20-7	Xylenes(Total)	B3103-3091	1.02	1.02	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B3103-3091	109.0 %	(85 - 122)	
460-00-4	4-BROMOFLUOROBENZENE	B3103-3091	105.0 %	(77 - 130)	
4774-33-8	DIBROMOFLUOROMETHANE	B3103-3091	85.4 %	(72 - 129)	
2037-26-5	TOLUENE-D8	B3103-3091	98.0 %	(85 - 110)	



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7/19/2010

STARS Volatile Compounds by SW 846 8260

Sample: 1007066-10

Client Sample ID: SB-5 (16-18')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 7/12/2010

Type: Grab

Collected: 7/7/2010 13:00

% Solid: 89.3%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
95-63-6	1,2,4-Trimethylbenzene	B3103-3089	2.07	19.5	ug/Kg	J
108-67-8	1,3,5-Trimethylbenzene	B3103-3089	2.46	5.12	ug/Kg	J
71-43-2	Benzene	B3103-3089	2.97	2.97	ug/Kg	U
100-41-4	Ethylbenzene	B3103-3089	2.91	2.91	ug/Kg	U
98-82-8	Isopropylbenzene	B3103-3089	2.46	2.46	ug/Kg	U
108-38-3	m,p-xylene	B3103-3089	5.04	7.50	ug/Kg	J
1634-04-4	MTBE	B3103-3089	2.91	2.91	ug/Kg	U
104-51-8	n-Butylbenzene	B3103-3089	2.69	8.40	ug/Kg	J
103-65-1	n-Propylbenzene	B3103-3089	2.58	2.58	ug/Kg	U
91-20-3	Naphthalene	B3103-3089	2.52	8.18	ug/Kg	J
95-47-6	o-xylene	B3103-3089	2.18	2.18	ug/Kg	U
99-87-6	p-Isopropyltoluene	B3103-3089	2.63	3.44	ug/Kg	J
135-98-8	sec-Butylbenzene	B3103-3089	2.52	5.86	ug/Kg	J
98-06-6	tert-Butylbenzene	B3103-3089	2.97	2.97	ug/Kg	U
108-88-3	Toluene	B3103-3089	2.69	2.69	ug/Kg	U
1330-20-7	Xylenes(Total)	B3103-3089	5.04	7.50	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B3103-3089	116.0 %	(85 - 122)	
460-00-4	4-BROMOFLUOROBENZENE	B3103-3089	111.0 %	(77 - 130)	
4774-33-8	DIBROMOFLUOROMETHANE	B3103-3089	90.8 %	(72 - 129)	
2037-26-5	TOLUENE-D8	B3103-3089	102.0 %	(85 - 110)	



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7/19/2010

STARS Volatile Compounds by SW 846 8260

Sample: 1007066-11

Client Sample ID: SB-6 (13-15')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 7/12/2010

Type: Grab

Collected: 7/7/2010 14:00

% Solid: 79.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
95-63-6	1,2,4-Trimethylbenzene	B3103-3090	0.93	4.86	ug/Kg	J
108-67-8	1,3,5-Trimethylbenzene	B3103-3090	1.10	1.10	ug/Kg	U
71-43-2	Benzene	B3103-3090	1.33	1.33	ug/Kg	U
100-41-4	Ethylbenzene	B3103-3090	1.31	1.54	ug/Kg	J
98-82-8	Isopropylbenzene	B3103-3090	1.10	1.10	ug/Kg	U
108-38-3	m,p-xylene	B3103-3090	2.26	8.30	ug/Kg	J
1634-04-4	MTBE	B3103-3090	1.31	1.31	ug/Kg	U
104-51-8	n-Butylbenzene	B3103-3090	1.20	1.20	ug/Kg	U
103-65-1	n-Propylbenzene	B3103-3090	1.15	1.15	ug/Kg	U
91-20-3	Naphthalene	B3103-3090	1.13	1.60	ug/Kg	J
95-47-6	o-xylene	B3103-3090	0.98	2.35	ug/Kg	J
99-87-6	p-Isopropyltoluene	B3103-3090	1.18	1.18	ug/Kg	U
135-98-8	sec-Butylbenzene	B3103-3090	1.13	1.13	ug/Kg	U
98-06-6	tert-Butylbenzene	B3103-3090	1.33	1.33	ug/Kg	U
108-88-3	Toluene	B3103-3090	1.20	2.40	ug/Kg	J
1330-20-7	Xylenes(Total)	B3103-3090	2.26	10.6	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B3103-3090	113.0 %	(85 - 122)	
460-00-4	4-BROMOFLUOROBENZENE	B3103-3090	109.0 %	(77 - 130)	
4774-33-8	DIBROMOFLUOROMETHANE	B3103-3090	86.1 %	(72 - 129)	
2037-26-5	TOLUENE-D8	B3103-3090	98.9 %	(85 - 110)	



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7/19/2010

STARS Semivolatiles by SW846 8270C

Sample: 1007066-1

Client Sample ID: SB-1 GW

Collected: 7/6/2010 11:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 7/14/2010

Preparation Date(s) : 7/13/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
83-32-9	Acenaphthene	C2466-1885	1.36	1.36	ug/L	U
208-96-8	Acenaphthylene	C2466-1885	1.24	1.24	ug/L	U
120-12-7	Anthracene	C2466-1885	1.12	1.12	ug/L	U
56-55-3	Benzo(a)anthracene	C2466-1885	1.37	1.37	ug/L	U
50-32-8	Benzo(a)pyrene	C2466-1885	1.21	1.21	ug/L	U
205-99-2	Benzo(b)fluoranthene	C2466-1885	1.23	1.23	ug/L	U
191-24-2	Benzo(g,h,i)perylene	C2466-1885	1.40	1.40	ug/L	U
207-08-9	Benzo(k)fluoranthene	C2466-1885	1.39	1.39	ug/L	U
218-01-9	Chrysene	C2466-1885	1.27	1.27	ug/L	U
53-70-3	Dibenzo(a,h)anthracene	C2466-1885	1.16	1.16	ug/L	U
206-44-0	Fluoranthene	C2466-1885	1.15	1.15	ug/L	U
86-73-7	Fluorene	C2466-1885	1.21	1.21	ug/L	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2466-1885	1.27	1.27	ug/L	U
91-20-3	Naphthalene	C2466-1885	1.16	1.16	ug/L	U
85-01-8	Phenanthrene	C2466-1885	1.20	1.20	ug/L	U
129-00-0	Pyrene	C2466-1885	1.35	1.35	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
321-60-8	2-FLUOROBIPHENYL	C2466-1885	62.0 %	(43 - 116)	
4165-60-0	NITROBENZENE-D5	C2466-1885	59.6 %	(35 - 114)	
1718-51-0	TERPHENYL-D14	C2466-1885	41.5 %	(33 - 141)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

7/19/2010

STARS Semivolatiles by SW846 8270C

Sample: 1007066-2

Client Sample ID: SB-2 GW

Collected: 7/6/2010 10:00

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 7/14/2010

Preparation Date(s) : 7/13/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
83-32-9	Acenaphthene	C2466-1886	1.13	1.13	ug/L	U
208-96-8	Acenaphthylene	C2466-1886	1.03	1.03	ug/L	U
120-12-7	Anthracene	C2466-1886	0.93	0.93	ug/L	U
56-55-3	Benzo(a)anthracene	C2466-1886	1.14	1.14	ug/L	U
50-32-8	Benzo(a)pyrene	C2466-1886	1.01	1.01	ug/L	U
205-99-2	Benzo(b)fluoranthene	C2466-1886	1.02	1.02	ug/L	U
191-24-2	Benzo(g,h,i)perylene	C2466-1886	1.17	1.17	ug/L	U
207-08-9	Benzo(k)fluoranthene	C2466-1886	1.16	1.16	ug/L	U
218-01-9	Chrysene	C2466-1886	1.06	1.06	ug/L	U
53-70-3	Dibenzo(a,h)anthracene	C2466-1886	0.97	0.97	ug/L	U
206-44-0	Fluoranthene	C2466-1886	0.96	0.96	ug/L	U
86-73-7	Fluorene	C2466-1886	1.01	1.01	ug/L	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2466-1886	1.06	1.06	ug/L	U
91-20-3	Naphthalene	C2468-1923	9.67	392	ug/L	
85-01-8	Phenanthrene	C2466-1886	1.00	1.10	ug/L	J
129-00-0	Pyrene	C2466-1886	1.12	1.12	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
321-60-8	2-FLUOROBIPHENYL	C2466-1886	67.4 %	(43 - 116)	
4165-60-0	NITROBENZENE-D5	C2466-1886	59.0 %	(35 - 114)	
1718-51-0	TERPHENYL-D14	C2466-1886	51.3 %	(33 - 141)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

7/19/2010

STARS Semivolatiles by SW846 8270C

Sample: 1007066-3

Client Sample ID: SB-3 GW

Collected: 7/6/2010 12:30

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 7/14/2010

Preparation Date(s) : 7/13/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
83-32-9	Acenaphthene	C2466-1887	1.70	6.87	ug/L	J
208-96-8	Acenaphthylene	C2466-1887	1.55	1.55	ug/L	U
120-12-7	Anthracene	C2466-1887	1.40	3.94	ug/L	J
56-55-3	Benzo(a)anthracene	C2466-1887	1.72	1.72	ug/L	U
50-32-8	Benzo(a)pyrene	C2466-1887	1.52	1.52	ug/L	U
205-99-2	Benzo(b)fluoranthene	C2466-1887	1.53	1.53	ug/L	U
191-24-2	Benzo(g,h,i)perylene	C2466-1887	1.75	1.75	ug/L	U
207-08-9	Benzo(k)fluoranthene	C2466-1887	1.73	1.73	ug/L	U
218-01-9	Chrysene	C2466-1887	1.58	1.58	ug/L	U
53-70-3	Dibenzo(a,h)anthracene	C2466-1887	1.45	1.45	ug/L	U
206-44-0	Fluoranthene	C2466-1887	1.43	4.52	ug/L	J
86-73-7	Fluorene	C2466-1887	1.52	7.13	ug/L	J
193-39-5	Indeno(1,2,3-cd)pyrene	C2466-1887	1.58	1.58	ug/L	U
91-20-3	Naphthalene	C2466-1887	1.45	22.2	ug/L	
85-01-8	Phenanthrene	C2466-1887	1.50	24.9	ug/L	
129-00-0	Pyrene	C2466-1887	1.68	3.83	ug/L	J

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
321-60-8	2-FLUOROBIPHENYL	C2466-1887	60.4 %	(43 - 116)	
4165-60-0	NITROBENZENE-D5	C2466-1887	55.3 %	(35 - 114)	
1718-51-0	TERPHENYL-D14	C2466-1887	62.1 %	(33 - 141)	



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7/19/2010

STARS Semivolatiles by SW846 8270C

Sample: 1007066-4

Client Sample ID: SB-6 GW

Collected: 7/6/2010 14:20

Matrix: Liquid

Type: Grab

Remarks:

Analyzed Date: 7/14/2010

Preparation Date(s) : 7/13/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration	Units	Q
83-32-9	Acenaphthene	C2466-1888	1.46	1.46	ug/L	U
208-96-8	Acenaphthylene	C2466-1888	1.33	1.33	ug/L	U
120-12-7	Anthracene	C2466-1888	1.20	1.20	ug/L	U
56-55-3	Benzo(a)anthracene	C2466-1888	1.47	1.47	ug/L	U
50-32-8	Benzo(a)pyrene	C2466-1888	1.30	1.30	ug/L	U
205-99-2	Benzo(b)fluoranthene	C2466-1888	1.31	1.31	ug/L	U
191-24-2	Benzo(g,h,i)perylene	C2466-1888	1.50	1.50	ug/L	U
207-08-9	Benzo(k)fluoranthene	C2466-1888	1.49	1.49	ug/L	U
218-01-9	Chrysene	C2466-1888	1.36	1.36	ug/L	U
53-70-3	Dibenzo(a,h)anthracene	C2466-1888	1.24	1.24	ug/L	U
206-44-0	Fluoranthene	C2466-1888	1.23	1.23	ug/L	U
86-73-7	Fluorene	C2466-1888	1.30	1.30	ug/L	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2466-1888	1.36	1.36	ug/L	U
91-20-3	Naphthalene	C2466-1888	1.24	1.24	ug/L	U
85-01-8	Phenanthrene	C2466-1888	1.29	1.29	ug/L	U
129-00-0	Pyrene	C2466-1888	1.44	1.44	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
321-60-8	2-FLUOROBIPHENYL	C2466-1888	69.5 %	(43 - 116)	
4165-60-0	NITROBENZENE-D5	C2466-1888	63.1 %	(35 - 114)	
1718-51-0	TERPHENYL-D14	C2466-1888	78.7 %	(33 - 141)	



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7/19/2010

STARS Semivolatiles by SW846 8270C

Sample: 1007066-9

Client Sample ID: SB-3 (17-19')

Matrix: Soil

Remarks:

Analyzed Date: 7/9/2010

Preparation Date(s) : 7/8/2010

Type: Grab

Collected: 7/7/2010 11:40

% Solid: 88.4%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2463-1841	47.6	47.6	ug/Kg	U
208-96-8	Acenaphthylene	C2463-1841	38.9	38.9	ug/Kg	U
120-12-7	Anthracene	C2463-1841	50.3	50.3	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2463-1841	47.9	47.9	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2463-1841	58.9	58.9	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2463-1841	46.9	46.9	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2463-1841	86.4	86.4	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2463-1841	86.1	86.1	ug/Kg	U
218-01-9	Chrysene	C2463-1841	59.8	59.8	ug/Kg	U
53-70-3	Dibenzo(a,h)anthracene	C2463-1841	63.1	63.1	ug/Kg	U
206-44-0	Fluoranthene	C2463-1841	62.3	62.3	ug/Kg	U
86-73-7	Fluorene	C2463-1841	45.5	45.5	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2463-1841	52.3	52.3	ug/Kg	U
91-20-3	Naphthalene	C2463-1841	45.5	70.8	ug/Kg	J
85-01-8	Phenanthrene	C2463-1841	51.5	51.5	ug/Kg	U
129-00-0	Pyrene	C2463-1841	41.9	41.9	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
321-60-8	2-FLUOROBIPHENYL	C2463-1841	53.9 %	(30 - 115)	
4165-60-0	NITROBENZENE-D5	C2463-1841	53.4 %	(23 - 120)	
1718-51-0	TERPHENYL-D14	C2463-1841	88.2 %	(18 - 137)	



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Phone - 631-249-1456 Fax - 631-249-8344

7/19/2010

STARS Semivolatiles by SW846 8270C

Sample: 1007066-10

Client Sample ID: SB-5 (16-18')

Matrix: Soil

Remarks:

Analyzed Date: 7/9/2010

Preparation Date(s) : 7/8/2010

Type: Grab

Collected: 7/7/2010 13:00

% Solid: 89.3%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2463-1842	47.1	47.1	ug/Kg	U
208-96-8	Acenaphthylene	C2463-1842	38.5	38.5	ug/Kg	U
120-12-7	Anthracene	C2463-1842	49.8	49.8	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2463-1842	47.4	47.4	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2463-1842	58.3	58.3	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2463-1842	46.5	46.5	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2463-1842	85.6	85.6	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2463-1842	85.2	85.2	ug/Kg	U
218-01-9	Chrysene	C2463-1842	59.2	59.2	ug/Kg	U
53-70-3	Dibenzo(a,h)anthracene	C2463-1842	62.5	62.5	ug/Kg	U
206-44-0	Fluoranthene	C2463-1842	61.7	61.7	ug/Kg	U
86-73-7	Fluorene	C2463-1842	45.0	45.0	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2463-1842	51.7	51.7	ug/Kg	U
91-20-3	Naphthalene	C2463-1842	45.0	45.0	ug/Kg	U
85-01-8	Phenanthrene	C2463-1842	51.0	65.9	ug/Kg	J
129-00-0	Pyrene	C2463-1842	41.4	41.4	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
321-60-8	2-FLUOROBIPHENYL	C2463-1842	50.0 %	(30 - 115)	
4165-60-0	NITROBENZENE-D5	C2463-1842	50.0 %	(23 - 120)	
1718-51-0	TERPHENYL-D14	C2463-1842	71.5 %	(18 - 137)	



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7/19/2010

STARS Semivolatiles by SW846 8270C

Sample: 1007066-11

Client Sample ID: SB-6 (13-15')

Matrix: Soil

Remarks:

Analyzed Date: 7/9/2010

Preparation Date(s) : 7/8/2010

Type: Grab

Collected: 7/7/2010 14:00

% Solid: 79.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2463-1843	52.9	52.9	ug/Kg	U
208-96-8	Acenaphthylene	C2463-1843	43.2	43.2	ug/Kg	U
120-12-7	Anthracene	C2463-1843	55.9	55.9	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2463-1843	53.1	53.1	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2463-1843	65.5	65.5	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2463-1843	52.1	52.1	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2463-1843	96.0	96.0	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2463-1843	95.6	95.6	ug/Kg	U
218-01-9	Chrysene	C2463-1843	66.5	66.5	ug/Kg	U
53-70-3	Dibenzo(a,h)anthracene	C2463-1843	70.1	70.1	ug/Kg	U
206-44-0	Fluoranthene	C2463-1843	69.2	69.2	ug/Kg	U
86-73-7	Fluorene	C2463-1843	50.5	50.5	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2463-1843	58.0	58.0	ug/Kg	U
91-20-3	Naphthalene	C2463-1843	50.5	50.5	ug/Kg	U
85-01-8	Phenanthrene	C2463-1843	57.2	57.2	ug/Kg	U
129-00-0	Pyrene	C2463-1843	46.5	46.5	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
321-60-8	2-FLUOROBIPHENYL	C2463-1843	52.7 %	(30 - 115)	
4165-60-0	NITROBENZENE-D5	C2463-1843	56.8 %	(23 - 120)	
1718-51-0	TERPHENYL-D14	C2463-1843	90.0 %	(18 - 137)	



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Phone - 631-249-1456 Fax - 631-249-8344

7/19/2010

Mercury by SW846 7470/7471/EPA 245.1

Sample: 1007066-5

Client Sample ID: SB-1 (3-5')

Matrix: Soil

Type: Grab

Collected: 7/6/2010 10:25

% Solid: 86.9%

Remarks:

Analyzed Date: 7/9/2010

Preparation Date(s) : 7/9/2010

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.015	0.54	mg/Kg	

* Results are reported on a dry weight basis



Environmental Testing Laboratories, Inc.

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Phone - 631-249-1456 Fax - 631-249-8344

7/19/2010

RCRA Metals by Method SW846 6010/EPA 200.7

Sample: 1007066-5

Client Sample ID: SB-1 (3-5')

Matrix: Soil

Type: Grab

Collected: 7/6/2010 10:25

% Solid: 86.9%

Remarks:

Analyzed Date: 7/9/2010

Preparation Date(s) : 7/9/2010 7/8/2010

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	0.83	0.83	mg/Kg	U
7440-39-3	Barium	0.35	95.7	mg/Kg	
7440-43-9	Cadmium	0.28	0.28	mg/Kg	U
7440-47-3	Chromium	0.22	8.58	mg/Kg	
7439-92-1	Lead	0.42	244	mg/Kg	
7782-49-2	Selenium	0.69	0.69	mg/Kg	U
7440-22-4	Silver	0.32	0.32	mg/Kg	U

* Results are reported on a dry weight basis



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7/19/2010

Case Narrative

METALS ANALYSIS

Batch C3956

Ag,As and Se were rejected for sample #5 after a review of the spectra revealed no peaks above the baseline.



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7/19/2010

Case Narrative

GCMS Volatile 8260 Analysis

1007066-10 was analyzed at a 1:5 dilution. Re-analysis at a lower dilution was not possible due to high concentrations of non-target compounds (mainly hydrocarbons) present in the sample. System contamination and detector saturation would occur at lower dilutions.



- 1007066 -

Page: 19 of 21

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7/19/2010

Case Narrative

EPA 8260 VOLATILE ANALYSIS:

The following compounds were calibrated at 25, 50, 100, 150 and 200 ppb levels in the initial calibration curve:

Acetone

2-Butanone

4-Methyl-2-pentanone

2-Hexanone

M&P-Xylenes and 2-Chloroethylvinylether were calibrated at 10, 40, 100, 200 and 300 ppb levels.

Acrolein/Acrylonitrile were calibrated at 50,100,150,200 and 250 ppb levels.

Tert Butyl Alcohol (TBA) was calibrated at 50,200,500,1000 and 1500 ppb levels.

All other compounds were calibrated at 5, 20, 50, 100 and 150 ppb levels.



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7/19/2010

ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

- U - The analytical result is not detected above the Method Detection Limit (MDL).
All MDL's are lower than the lowest calibration standard concentration.
- J - Indicates an estimated value. The concentration reported was between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
- B - The analyte was found in the associated method blank as well as the sample.
It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- E - The concentration of the analyte exceeded the calibration range of the instrument.
- D - This flag indicates a system monitoring compound diluted out.

INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

- B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Method Detection Limit (MDL).
- U - Entered when the analyte was analyzed for, but not detected above the Method Detection Limit (MDL) which is less than the lowest calibration standard concentration.

Q - Qualifier specific entries and their meanings are as follows:

- E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

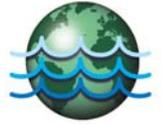
- A - Flame AA
- AS - Semi-automated Spectrophotometric
- AV - Automated Cold Vapor AA
- C - Manual Spectrophotometric
- F - Furnace AA
- P - ICP
- T - Titrimetric

OTHER QUALIFIERS

ND - Not Detected



P.W. GROSSER CONSULTING



September 22, 2010

Ms. Jerritte Hollinger
Mr. Ismael Cisneros
291 Metropolitan Avenue LLC.
291 Metropolitan Avenue
Brooklyn, New York 11211

Re: Supplemental Phase II Environmental Site Assessment
291 Metropolitan Avenue, Brooklyn, New York

Dear Ms. Hollinger and Mr. Cisneros:

P.W. Grosser Consulting, Inc. (PWGC) has prepared this report to document the results of the Supplemental Phase II Environmental Site Investigation (ESA) at the property located at 291 Metropolitan Avenue in Brooklyn, New York. The scope of service was based upon the findings of the Phase II Environmental Site Assessment performed in July 2010 and the New York State Department of Conservation (NYSDEC) requirements for additional investigation.

PROJECT BACKGROUND

The subject site is located at 291 Metropolitan Avenue in Brooklyn, New York. The property is currently owned and occupied by M. I. Mechanical Industries, Inc. Based upon our correspondence and a review of the 2006 ASR Investigation Summary Report, the property was formerly occupied by a gasoline filling station and an automotive repair facility. Several underground storage tanks (USTs), consisting of fuel oil, waste oil, and gasoline were identified on the property. At the time of the ASR sampling, the property was operated as an automotive repair facility only and was not storing / dispensing motor fuels however, the condition / status of the tanks was unknown. Based upon lack of documentation concerning the status of the tanks, it is assumed that they are still present at the site.

PREVIOUS ENVIRONMENTAL INVESTIGATIONS

To determine if subsurface soil / groundwater contamination existed at the site, in 2006 ASR performed six soil and groundwater borings on the property. Subsurface soil and groundwater contamination was identified on the property when compared to their respective NYSDEC Recommended Soil Clean-up Objectives (RSCOs) as specified in the Technical and Administrative Guidance Memorandum (TAGM) #4046 and Class GA

Groundwater Standards as specified in the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1.

Based upon the contamination on the subject property, ASR contacted the NYSDEC and spill # 06-07903 was assigned to the site. Based upon information provided to PWGC, no further investigation / remediation had occurred at the site since the 2006 investigation.

In order to assess the current conditions at the site, PWGC performed a subsurface soil and groundwater investigation at the property in July 2010. This investigation focused on areas where impacted soil / groundwater was identified by ASR during the 2006 investigation. Results of the July 2010 investigation indicated that no soil impact was evident above the NYSDEC RSCOs; however, groundwater contamination still existed at the subject property in the vicinity of the gasoline USTs.

Based upon the results of the July 2010 investigation, the NYSDEC indicated that additional borings needed to be performed to delineate the extent of the contamination. The NYSDEC indicated that they wanted the following borings completed:

1. One northwest of the gasoline USTs,
2. One in the immediate vicinity of the waste oil UST, and
3. One to the northwest of the fuel oil UST.

NYSDEC REQUIRED SCOPE OF WORK

August 2010 Supplemental Subsurface Investigation

In order to address the above concerns of the NYSDEC, PWGC conducted a supplemental environmental assessment at the site on August 24, 2010. The investigation included a more in depth site survey and the installation of additional borings.

Since, based upon earlier results the site will require remediation, PWGC performed a thorough visual inspection of the site during the August 24, 2010 visit. During this inspection PWGC identified the fill port for the waste oil UST. Upon opening the fill port and gauging

the tank, it was determined that the waste oil tank was not properly decommissioned since waste oil was still present within the tank. Additionally, a four foot by two foot concrete patch was identified in the approximate location of the fuel oil UST located inside the building. The size and location of the patch and UST are consistent with the fuel oil UST having been abandoned in place. Several concrete patches (two foot wide by eight foot long) were identified in the parking lot in the vicinity of the gasoline USTs. Based upon PWGC's experience, the identified patches in the vicinity of the gasoline USTs were too small to account for a tank removal; however, they are consistent with either performing repairs on the tanks or abandonment in place.

Following the inspection, PWGC along with Eastern Environmental Solutions, Inc (EES) performed additional borings. The locations of the borings were approved by the NYSDEC to further delineate the petroleum contamination and search for a source area. Boring locations are identified on **Figure 1**.

A track-mounted 6610DT Geoprobe™, supplied by EES, was utilized to install soil borings SB-7, SB-8, and SB-10. Due to access restrictions in the building, SB-9 was performed utilizing Geoprobe™ hand tools. At each boring location, PWGC collected soil samples continuously from ground surface to the soil/groundwater interface with the exception of SB-9 where refusal occurred at 10 feet below ground surface (bgs). A photoionization detector (PID) was used to characterize and field screen collected soils for the presence of VOCs. PID responses above background levels were identified in SB-7 and SB-8. In addition, suspected petroleum staining was observed at five feet below grade in SB-7. At each boring location the soil interval that exhibited the highest PID reading or the deepest interval above the soil/groundwater interface was submitted for analysis. Boring logs showing PID readings and sample intervals are attached in **Appendix A**.

The depth to water beneath the site is approximately 18 to 20 feet below grade. Since groundwater impact was identified during the previous investigations, groundwater samples were collected from each boring location except SB-9, where refusal was encountered. At each boring location where groundwater samples were collected, a temporary one inch diameter PVC well was installed. The temporary well located at the SB-7 location was identified to contain at least two feet of light non-aqueous phase liquid (LNAPL), no

groundwater was present in the well. PWGC collected a sample of the LNAPL and made the well permanent. LNAPL was not detected in the other two temporary wells. Utilizing polyethylene tubing, fitted with a check valve, groundwater samples were collected manually from the other two temporary wells.

Samples were stored in a cooler on ice and hand-delivered to Environmental Testing Laboratories, Inc. (ETL), a New York State Department of Health (NYSDOH) certified environmental laboratory. Soil and groundwater samples were analyzed for VOCs by EPA method 8260 and semi-volatile organic compounds (SVOCs) by EPA method 8270.

ANALYTICAL RESULTS

Soil Results

Soil sample analytical results were compared to the RSCOs contained in the NYSDEC TAGM #4046 guidance document. Results from the July testing, as well as this August sampling event, are both included in the forthcoming tables and maps in order to present a complete site assessment.

As shown on **Table 1**, VOCs were detected above laboratory method detection limits in each of the soil borings; however, the detected VOCs did not exceed NYSDEC RSCOs.

As shown on **Table 2**, several SVOCs were identified above laboratory method detection limits in three of the soil borings performed between July 2010 and August 2010. The detected SVOCs did not exceed NYSDEC RSCOs.

The laboratory analytical report is included as **Appendix B**

Groundwater Results

Groundwater sample analytical results were compared to the Class GA Groundwater Standards as specified in the NYSDEC TOGS 1.1.1.

As shown on **Table 3**, VOCs (primarily MTBE) were detected above their respective groundwater quality standards in the groundwater samples collected from each of the groundwater borings performed between July 2010 and August 2010. The highest concentration of Total VOCs (SB-2 - 128,988 µg/L) was found in the immediate vicinity of the gasoline USTs with decreasing concentrations identified further from the tanks. Based upon these concentrations, it is assumed that the gasoline USTs have not been properly abandoned and are likely still contributing to the impact at the subject site.

As shown on **Table 4**, one SVOC, Phenol, was detected above its respective groundwater quality standard of 1 µg/L in each of the two groundwater samples; SB-8 GW (1.78 µg/L) and SB-10 GW (1.2 µg/L).

The LNAPL sample collected from SB-7 was analyzed by a modified 8100 to determine the composition. The results indicated the LNAPL was predominantly lubricating oils with a small amount of kerosene indicating it is likely a result from a release from the waste oil tank. The current groundwater concentrations, as well as those from the July investigation, are identified on **Figure 1**. VOC analysis of the LNAPL sample indicated that no MTBE was present in the LNAPL; however BTEX compounds were present indicating that the two releases (from the gasoline USTs and the waste oil UST) may be commingled.

The analytical report is included as **Appendix B**.

CONCLUSIONS AND RECOMMENDATIONS

Based upon site conditions, since no fuel oil related impacts were identified in the vicinity of the fuel oil UST, it appears this tank has not leaked. Analytical results from the July and August 2010 investigations are contained in **Tables 1** through **4** and were used to determine the current conditions of the subsurface soil and groundwater at the subject property. Based upon the current results, soil impact above the NYSDEC RSCOs was not identified in the soil borings. Groundwater contamination, consisting primarily of MTBE and LNAPL, is present at the subject property and requires remediation. It is assumed that the gasoline USTs have not been properly abandoned and are likely still contributing to the impact at the subject site.

During the August 2010 supplemental investigation LNAPL was identified in the vicinity of the waste oil UST. The analytical results indicated the LNAPL consisted predominantly of lubricating oils with a small amount of kerosene. This is typical of what would have been stored in the waste oil tank. Due to the presence of LNAPL in the vicinity of the waste oil UST it is apparent that a release from the tank has occurred.

Based upon the findings of the recent investigations, it appears that the fuel oil UST has not leaked; however, two releases have occurred at the site.

- A release has occurred from the gasoline USTs and is associated with groundwater contamination consisting primarily of MTBE.
- A release from the waste oil tank associated with the presence of LNAPL.

Based upon the above findings, PWGC has the following remedial recommendations for the site:

- Proper closure (removal) of the gasoline and waste oil UST,
- Removal and disposal of impacted soil, present below the water-table interface,
- Injection of chemical oxidants to assist in the breakdown of contamination,
- Collection of proper endpoint samples,
- Installation of groundwater monitoring wells,
- Removal of LNAPL (if present),
- Quarterly monitoring to determine effectiveness of remedial action.

Please call if you have any questions or would like to discuss your project further. I look forward to hearing from you.

Very truly yours,
P.W. Grosser Consulting, Inc.

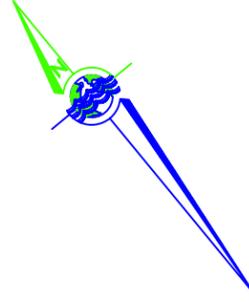


Rocky Wenskus
Senior Hydrogeologist



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FIGURE



CONSULTANTS

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DRAWINGS PREPARED FOR

REVISION	DATE	INITIALS	COMMENTS

DRAWING INFORMATION

PROJECT:	MAB1001	APPROVED BY:	PWG
DESIGNED BY:	JL	DATE:	7/15/10
DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

SITE PLAN W/ GROUNDWATER SAMPLING RESULTS

291 METROPOLITAN AVE.
BROOKLYN, NY

FIGURE NO	1
SHEET	1 OF 1

N 4th STREET

SIDEWALK

REGIONAL GROUNDWATER FLOW DIRECTION

FUEL OIL

SB-9 [NS]

SB-6 [ND]

SB-10 [34.25 ug/L]

BUILDING

AWNING

SIDEWALK

1,000

[LNAPL] SB-7

PARKING LOT

SB-2 [128,988 ug/L]

100,000

FILL PORT

WASTE OIL

SB-5 [NS]

SB-8 [432.8 ug/L]

SB-1 [645 ug/L]

SB-4 [NS]

SB-3 [1,383 ug/L]

GASOLINE TANK & FORMER PUMP ISLAND

SIDEWALK

ROEBLING STREET

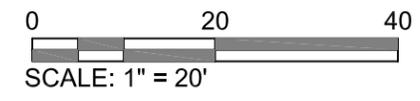
METROPOLITAN AVENUE

SITE PLAN W/ BORING LOCATIONS

SCALE: 1" = 20'

- LEGEND**
- SB-1 BORING LOCATION
 - GROUNDWATER CONTOUR
 - - - INFERRED GROUNDWATER CONTOUR
 - [1,383 ug/L] DISSOLVED TVOC CONCENTRATION
 - NS NOT SAMPLED
 - ND NOT DETECTED

BASEMAP PROVIDED BY:
GOOGLE EARTH



L:\Projects M-R\MAB\cad\Site plan 9-16-10.dwg (11x17H) Sep 21, 2010 1:48pm By: guzman

TABLES

Table 1

Analytical Results for Sub-surface Soil - Volatile Organic Compounds (EPA Method 8260)

291 Metropolitan Avenue - Brooklyn, New York

Client Sample ID:	NYSDEC Clean-up Objectives ⁽¹⁾	SB-3 (17-19) 7/6/2010	SB-5 (16-18) 7/6/2010	SB-6 (13-15) 7/6/2010	SB-7 5-10' 8/24/2010	SB-8 15-17.5' 8/24/2010	SB-9 7.5-10 8/24/2010	SB-10 17.5-20' 8/24/2010
Volatile Organic Compounds - USEPA Method 8260 - ug/kg								
1,1,1,2-Tetrachloroethane	NS	NA	NA	NA	0.53 U	0.51 U	0.58 U	0.53 U
1,1,1-Trichloroethane	800	NA	NA	NA	0.60 U	0.58 U	0.66 U	0.60 U
1,1,2,2-Tetrachloroethane	600	NA	NA	NA	0.7 U	0.67 U	0.76 U	0.69 U
1,1,2 Trichloroethane	NS	NA	NA	NA	0.73 U	0.70 U	0.8 U	0.72 U
1,1,2-Trichlorotrifluoroethane	NS	NA	NA	NA	0.60 U	0.58 U	0.66 U	0.6 U
1,1 Dichloroethane	200	NA	NA	NA	0.66 U	0.63 U	0.72 U	0.66 U
1,1 Dichloroethene	400	NA	NA	NA	0.43 U	0.41 U	0.47 U	0.43 U
1,1-Dichloropropene	NS	NA	NA	NA	0.61 U	0.59 U	0.67 U	0.61 U
1,2,3-Trichlorobenzene	NS	NA	NA	NA	0.56 U	0.53 U	0.61 U	0.55 U
1,2,3-Trichloropropane	400	NA	NA	NA	0.82 U	0.79 U	0.9 U	0.82 U
1,2,4,5-Tetramethylbenzene	NS	NA	NA	NA	52.8	21.3	5.38	4.34
1,2,4-Trichlorobenzene	3,400	NA	NA	NA	0.39 U	0.38 U	0.43 U	0.39 U
1,2,4-Trimethylbenzene	10,000	0.89 J	19.5 J	4.86 J	1,740	119	6.86	0.88
1,2 Dibromo 3 chloropropane	NS	NA	NA	NA	0.53 U	0.51 U	0.58 U	0.53 U
1,2 Dibromoethane	NS	NA	NA	NA	0.68 U	0.65 U	0.75 U	0.68 U
1,2 Dichlorobenzene	7,900	NA	NA	NA	1.21	0.52 U	0.6 U	0.54 U
1,2 Dichloroethane	100	NA	NA	NA	0.67 U	0.64 U	0.74 U	0.67 U
1,2 Dichloropropane	NS	NA	NA	NA	0.68 U	0.65 U	0.75 U	0.68 U
1,3,5-Trimethylbenzene	3,300	0.50 U	5.12 J	1.10 U	124	1.18	1.75	0.51 U
1,3 Dichlorobenzene	1,600	NA	NA	NA	0.61 U	0.59 U	0.67 U	0.61 U
1,3-Dichloropropane	300	NA	NA	NA	0.60 U	0.58 U	0.66 U	0.60 U
1,4 Dichlorobenzene	8,500	NA	NA	NA	0.56 U	0.53 U	0.61 U	0.55 U
2,2-Dichloropropane	NS	NA	NA	NA	0.68 U	0.65 U	0.75 U	0.68 U
2-Butanone	300	NA	NA	NA	2.58 U	2.46 U	2.82 U	2.55 U
2-Chloroethylvinylether	NS	NA	NA	NA	0.74 U	0.71 U	0.81 U	0.74 U
2-Chlorotoluene	NS	NA	NA	NA	0.61 U	0.59 U	0.67 U	0.61 U
2-Hexanone	NS	NA	NA	NA	2.3 U	2.20 U	2.51 U	2.28 U
4-Chlorotoluene	NS	NA	NA	NA	0.58 U	0.56 U	0.63 U	0.57 U
4-Isopropyltoluene	10,000	0.53 U	3.44 J	1.18 U	30.2	1.21	0.60 U	0.54 U
4-Methyl-2-pentanone	1,000	NA	NA	NA	2.49 U	2.39 U	2.73 U	2.47 U
Acetone	200	NA	NA	NA	8.39	2.89 U	3.3 U	8.61
Acrylonitrile	NS	NA	NA	NA	8.11 U	7.76 U	8.88 U	8.04 U
Benzene	60 or MDL	0.60 U	2.97 U	1.33 U	30.5	0.59 U	0.67 U	0.61 U
Bromobenzene	NS	NA	NA	NA	0.59 U	0.57 U	0.65 U	0.59 U
Bromochloromethane	NS	NA	NA	NA	0.67 U	0.64 U	0.74 U	0.67 U
Bromodichloromethane	NS	NA	NA	NA	0.55 U	0.52 U	0.6 U	0.54 U
Bromoform	NS	NA	NA	NA	0.56 U	0.53 U	0.61 U	0.55 U
Bromomethane	NS	NA	NA	NA	0.57 U	0.54 U	0.62 U	0.56 U
c-1,2-Dichloroethene	NS	NA	NA	NA	0.52 U	0.5 U	0.57 U	0.52 U
c-1,3-Dichloropropene	NS	NA	NA	NA	0.59 U	0.57 U	0.65 U	0.59 U
Carbon Disulfide	2,700	NA	NA	NA	0.55 U	0.52 U	0.6 U	0.54 U
Carbon Tetrachloride	600	NA	NA	NA	0.65 U	0.62 U	0.71 U	0.64 U
Chlorobenzene	1,700	NA	NA	NA	0.71 U	0.68 U	0.77 U	0.70 U
Chlorodifluoromethane	NS	NA	NA	NA	1.02 U	0.98 U	1.12 U	1.01 U
Chloroethane	1900	NA	NA	NA	0.81 U	0.78 U	0.89 U	0.81 U
Chloroform	300	NA	NA	NA	0.68 U	0.65 U	0.75 U	0.68 U
Chloromethane	NS	NA	NA	NA	0.58 U	0.56 U	0.63 U	0.57 U
Dibromochloromethane	NS	NA	NA	NA	0.53 U	0.51 U	0.58 U	0.53 U
Dibromoethane	NS	NA	NA	NA	0.92 U	0.88 U	1.00 U	0.91 U
Dichlorodifluoromethane	NS	NA	NA	NA	0.43 U	0.41 U	0.47 U	0.43 U
Ethyl Benzene	5,500	0.59 U	2.91 U	1.54 J	101	0.58 U	0.66 U	0.6 U
Hexachlorobutadiene	NS	NA	NA	NA	0.56 U	0.53 U	0.61 U	0.55 U
Isopropylbenzene	2,300	0.50 U	2.46 U	1.10 U	27.3	6.78	0.56 U	0.51 U
m + p Xylene	1,200*	1.02 U	7.50 J	8.30 J	322	11.1	2.56	1.03 U
tert-ButylMethylEther	120	0.59 U	2.91 U	1.31 U	0.60 U	0.58 U	0.66 U	0.60 U
Methylene Chloride	100	NA	NA	NA	1.09 U	1.04 U	1.19 U	8.71
n-Butylbenzene	10,000	0.54 U	8.40 J	1.20 U	38.6	8.31	0.61 U	0.55 U
n-Propylbenzene	3,700	0.52 U	2.58 U	1.15 U	49.8	11.1	0.79	0.53 U
Naphthalene	13,000	1.03 J	8.18 J	1.60 J	1,120	16.7	8.58	6.08
o Xylene	1,200*	0.44 U	2.18 U	2.35 J	741	29.6	0.78	0.45 U
p-Diethylbenzene	NS	NA	NA	NA	163	0.51 U	0.58 U	0.53 U
p-Ethyltoluene	NS	NA	NA	NA	997	54.2	4	0.48 U
sec-Butylbenzene	10,000	0.51 U	5.86 J	1.13 U	15.7	1.54	0.57 U	0.52 U
Styrene	NS	NA	NA	NA	0.50 U	0.48 U	0.55 U	0.49 U
t-1,2-Dichloroethene	300	NA	NA	NA	0.53 U	0.51 U	0.58 U	0.53 U
t-1,3-Dichloropropene	NS	NA	NA	NA	0.49 U	0.47 U	0.53 U	0.48 U
TAME	NS	NA	NA	NA	0.73 U	0.7 U	0.8 U	0.72 U
tert-Butylbenzene	10,000	0.60 U	2.97 U	1.33 U	0.61 U	0.59 U	0.67 U	0.61 U
Tertiary butyl alcohol	NS	NA	NA	NA	6.25 U	5.98 U	6.85 U	6.20 U
Tetrachloroethane	1,400	NA	NA	NA	0.52 U	0.50 U	0.57 U	0.52 U
Toluene	1,500	0.54 U	2.69 U	2.40 J	593	1.1	0.61 U	0.55 U
Trichloroethene	NS	NA	NA	NA	0.57 U	0.54 U	0.62 U	0.56 U
Trichlorofluoromethane	NS	NA	NA	NA	0.65 U	0.62 U	0.71 U	0.64 U
Vinyl Chloride	200	NA	NA	NA	0.79 U	0.75 U	0.86 U	0.78 U

Notes:

NS - No Standard

MDL - Method Detection Limit

(1) NYSDEC Recommended Soil Cleanup Objectives (RSCO), Technical and Administrative Guidance Memorandum (TAGM) #4046, 12/00

U - The analyte was analyzed for, but was not detected above the reported sample quantification limit. The associated numerical value is the sample quantification limit.

Shaded text denotes concentrations exceeding NYSDEC RSCO

Table 2

Analytical Results for Sub-Surface Soil - Semi-volatile Organic Compounds (EPA Method 8270)

291 Metropolitan Avenue - Brooklyn, New York

Client Sample ID:		SB-3	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10
Sample Depth:	NYSDEC Clean-up Objectives ⁽¹⁾	(17-19')	(16-18')	(13-15')	5-10'	15-17.5'	7.5-10'	17.5-20'
Sampling Date:		7/6/2010	7/6/2010	7/6/2010	8/24/2010	8/24/2010	8/24/2010	8/24/2010
Semi-Volatile Organic Compounds by 8270 - ug/kg								
1,2,4-Trichlorobenzene	NS	NA	NA	NA	48.4 U	46.3 U	52.7 U	47.8 U
1,2-Dichlorobenzene	NS	NA	NA	NA	36 U	34.4 U	39.2 U	35.5 U
1,2-Diphenylhydrazine	NS	NA	NA	NA	35.2 U	33.6 U	38.3 U	34.7 U
1,3-Dichlorobenzene	NS	NA	NA	NA	39.1 U	37.4 U	42.6 U	38.6 U
1,4-Dichlorobenzene	NS	NA	NA	NA	38.0 U	36.3 U	41.3 U	37.5 U
2,3,4,6-Tetrachlorophenol	NS	NA	NA	NA	46.1 U	44.0 U	50.2 U	45.5 U
2,4,5-Trichlorophenol	100	NA	NA	NA	25.3 U	24.1 U	27.5 U	24.9 U
2,4,6-Trichlorophenol	NS	NA	NA	NA	43.8 U	41.8 U	47.7 U	43.2 U
2,4-Dichlorophenol	400	NA	NA	NA	38.2 U	36.5 U	41.6 U	37.7 U
2,4-Dimethylphenol	NS	NA	NA	NA	48.7 U	46.5 U	53.0 U	48.0 U
2,4-Dinitrophenol	200 or MDL	NA	NA	NA	410 U	392 U	446 U	405 U
2,4-Dinitrotoluene	NS	NA	NA	NA	69.8 U	66.7 U	76.0 U	69.0 U
2,6-Dinitrotoluene	1000	NA	NA	NA	48.0 U	45.8 U	52.2 U	47.4 U
2-Chloronaphthalene	NS	NA	NA	NA	56.1 U	53.6 U	61.1 U	55.4 U
2-Chlorophenol	800	NA	NA	NA	56.1 U	53.6 U	61.1 U	55.4 U
2-Methylnaphthalene	36,400	NA	NA	NA	1,870 U	44.2 U	50.3 U	45.6 U
2-Methylphenol	100 or MDL	NA	NA	NA	41.7 U	39.8 U	45.4 U	41.1 U
2-Nitroaniline	430 or MDL	NA	NA	NA	60.7 U	58.0 U	66.0 U	59.9 U
2-Nitrophenol	330 or MDL	NA	NA	NA	35.4 U	33.8 U	38.5 U	34.9 U
3,4-Methylphenol	900	NA	NA	NA	36.0 U	34.4 U	39.2 U	35.5 U
3,3'-Dichlorobenzidine	NS	NA	NA	NA	56.1 U	53.6 U	61.1 U	55.4 U
3-Nitroaniline	500 or MDL	NA	NA	NA	20.0 U	19.1 U	21.8 U	19.8 U
4,6-Dinitro-2-methylphenol	NS	NA	NA	NA	509 U	486 U	554 U	502 U
4-Bromophenyl phenyl ether	NS	NA	NA	NA	52.9 U	50.5 U	57.5 U	52.2 U
4-Chloro-3-methylphenol	240 or MDL	NA	NA	NA	43.4 U	41.5 U	47.3 U	42.9 U
4-Chloroaniline	220 or MDL	NA	NA	NA	44.4 U	42.4 U	48.3 U	43.8 U
4-Chlorophenyl phenyl ether	NS	NA	NA	NA	45.3 U	43.3 U	49.3 U	44.7 U
4-Nitroaniline	NS	NA	NA	NA	114 U	109 U	124 U	112 U
4-Nitrophenol	100 or MDL	NA	NA	NA	776 U	742 U	845 U	767 U
Acenaphthene	50,000	47.6 U	47.1 U	52.9 U	49.0 U	46.8 U	53.4 U	48.4 U
Acenaphthylene	50,000	38.9 U	38.5 U	43.2 U	66.9 U	38.3 U	43.6 U	39.5 U
Aniline	NS	NA	NA	NA	36.2 U	34.6 U	39.4 U	35.7 U
Anthracene	50,000	50.3 U	49.8 U	55.9 U	57.6 U	49.5 U	56.4 U	51.1 U
Benzidine	NS	NA	NA	NA	1,020 U	977 U	1,110 U	1,010 U
Benzo(a)anthracene	224 or MDL	47.9 U	47.4 U	53.1 U	78.8 U	47.1 U	53.6 U	48.6 U
Benzo(a)pyrene	61 or MDL	58.9 U	58.3 U	65.5 U	60.7 U	58.0 U	66.0 U	59.9 U
Benzo(b)fluoranthene	1,100	46.9 U	46.5 U	52.1 U	48.3 U	46.2 U	52.6 U	47.7 U
Benzo(ghi)perylene	50,000	86.4 U	85.6 U	96.0 U	88.9 U	85.0 U	96.8 U	87.8 U
Benzo(k)fluoranthene	1,100	86.1 U	85.2 U	95.6 U	88.6 U	84.6 U	96.5 U	87.5 U
Benzoic Acid	NS	NA	NA	NA	6,820 U	6,520 U	7,430 U	6,740 U
Benzyl alcohol	NS	NA	NA	NA	68.7 U	65.6 U	74.8 U	67.8 U
bis(2-Chloroethoxy)methane	NS	NA	NA	NA	48.2 U	46.1 U	52.5 U	47.6 U
bis(2-Chloroethyl)ether	NS	NA	NA	NA	55.1 U	52.6 U	59.9 U	54.4 U
bis(2-Chloroisopropyl)ether	NS	NA	NA	NA	42.7 U	40.8 U	46.5 U	42.2 U
bis(2-Ethylhexyl)phthalate	50,000	NA	NA	NA	76.3 U	72.9 U	83.0 U	75.3 U
BenzylButylPhthalate	50,000	NA	NA	NA	61.5 U	58.7 U	66.9 U	60.7 U
Carbazole	NS	NA	NA	NA	67.1 U	64.1 U	73.0 U	66.2 U
Chrysene	400	59.8 U	59.2 U	66.5 U	136 U	58.8 U	67.0 U	60.8 U
Cresols	NS	NA	NA	NA	77.7 U	74.2 U	84.6 U	76.6 U
Di-n-Butyl Phthalate	8,100	NA	NA	NA	65.5 U	62.6 U	71.4 U	64.7 U
Di-n-octyl Phthalate	50,000	NA	NA	NA	57.3 U	54.7 U	62.4 U	56.6 U
Dibenzo(a,h)anthracene	14 or MDL	63.1 U	62.5 U	70.1 U	65.0 U	62.1 U	70.7 U	64.1 U
Dibenzofuran	6,200	NA	NA	NA	43.9 U	37.2 U	42.3 U	38.4 U
Diethyl Phthalate	7,100	NA	NA	NA	76.1 U	72.7 U	82.9 U	75.2 U
Dimethyl Phthalate	2,000	NA	NA	NA	56.2 U	53.7 U	61.2 U	55.5 U
Fluoranthene	50,000	62.3 U	61.7 U	69.2 U	161 U	61.3 U	69.8 U	63.3 U
Fluorene	50,000	45.5 U	45.0 U	50.5 U	100 U	44.7 U	51.0 U	46.2 U
Hexachlorobenzene	410	NA	NA	NA	49.8 U	47.6 U	54.2 U	49.2 U
Hexachlorobutadiene	NS	NA	NA	NA	46.6 U	44.5 U	50.7 U	46.0 U
Hexachlorocyclopentadiene	NS	NA	NA	NA	360 U	344 U	392 U	355 U
Hexachloroethane	NS	NA	NA	NA	51.8 U	49.5 U	56.4 U	51.1 U
Indeno(1,2,3-cd)pyrene	3,200	52.3 U	51.7 U	58.0 U	53.8 U	51.4 U	58.6 U	53.1 U
Isophorone	4,400	NA	NA	NA	53.2 U	50.8 U	57.9 U	52.5 U
N-Nitrosodi-n-propylamine	NS	NA	NA	NA	35.2 U	33.6 U	38.3 U	34.7 U
N-Nitrosodimethylamine	NS	NA	NA	NA	73.9 U	70.6 U	80.5 U	73.0 U
N-Nitrosodiphenylamine	NS	NA	NA	NA	63.4 U	60.6 U	69.1 U	62.6 U
Naphthalene	13,000	70.8 U	45.0 U	50.5 U	1,010 U	44.7 U	51.0 U	46.2 U
Nitrobenzene	200 or MDL	NA	NA	NA	45.1 U	43.0 U	49.0 U	44.5 U
Pentachlorophenol	1,000 or MDL	NA	NA	NA	441 U	422 U	480 U	436 U
Phenanthrene	50,000	51.5 U	5.90 U	57.2 U	328 U	50.6 U	57.7 U	52.3 U
Phenol	30 or MDL	NA	NA	NA	30.4 U	29.0 U	33.1 U	30.0 U
Pyrene	50,000	41.9 U	41.4 U	46.5 U	208 U	41.2 U	46.9 U	42.5 U
Pyridine	NS	NA	NA	NA	66.7 U	63.7 U	72.6 U	65.9 U

Notes:

(1) NYSDEC Recommended Soil Cleanup Objectives (RSCO), Technical and Administrative Guidance Memorandum (TAGM) #4046, 12/00

U - The analyte was analyzed for, but was not detected above the reported sample quantification limit. The associated numerical value is the sample quantitation limit.

NS - No Standard

NA - Not Analyzed

Shaded text denotes concentrations exceeding NYSDEC RSCO

Table 3

Analytical Results for Groundwater - Volatile Organic Compounds (EPA Method 8260)

291 Metropolitan Avenue - Brooklyn, New York

Client Sample ID:	NYSDEC Groundwater Standards ⁽¹⁾	SB-1 GW 7/6/2010	SB-2 GW 7/6/2010	SB-3 GW 7/6/2010	SB-6 GW 7/6/2010	SB-8(GW) 8/24/2010	SB-10(GW) 8/24/2010
Volatile Organic Compounds by 8260							
1,1,1,2-Tetrachloroethane	5	NA	NA	NA	NA	2.10 U	0.42 U
1,1,1-Trichloroethane	5	NA	NA	NA	NA	2.60 U	0.52 U
1,1,2,2-Tetrachloroethane	5	NA	NA	NA	NA	2.30 U	0.46 U
1,1,2-Trichloroethane	1	NA	NA	NA	NA	2.55 U	0.51 U
1,1,2-Trichlorotrifluoroethane	5	NA	NA	NA	NA	2.35 U	0.47 U
1,1 Dichloroethane	4	NA	NA	NA	NA	1.50 U	0.30 U
1,1 Dichloroethene	5	NA	NA	NA	NA	1.85 U	0.37 U
1,1-Dichloropropene	5	NA	NA	NA	NA	1.80 U	0.36 U
1,2,3-Trichlorobenzene	5	NA	NA	NA	NA	1.80 U	0.36 U
1,2,3-Trichloropropane	5	NA	NA	NA	NA	2.70 U	0.54 U
1,2,4,5-Tetramethylbenzene	5	NA	NA	NA	NA	1.75 U	0.35 U
1,2,4-Trichlorobenzene	5	NA	NA	NA	NA	2.25 U	0.45 U
1,2,4-Trimethylbenzene	5	27.8	3,010	0.44 U	0.44 U	2.20 U	0.44 U
1,2-Dibromo-3-Chloropropane	NS	NA	NA	NA	NA	1.40 U	0.28 U
1,2-Dibromoethane	NS	NA	NA	NA	NA	2.35 U	0.47 U
1,2-Dichlorobenzene	3	NA	NA	NA	NA	2.45 U	0.49 U
1,2-Dichloroethane	0.6	NA	NA	NA	NA	2.50 U	0.50 U
1,2-Dichloropropane	1	NA	NA	NA	NA	2.60 U	0.52 U
1,3,5-Trimethylbenzene	5	12.5	838	0.43 U	0.43 U	2.15 U	0.43 U
1,3-Dichlorobenzene	3	NA	NA	NA	NA	1.90 U	0.38 U
1,3-Dichloropropane	5	NA	NA	NA	NA	2.30 U	0.46 U
1,4-Dichlorobenzene	3	NA	NA	NA	NA	2.00 U	0.40 U
2,2-Dichloropropane	5	NA	NA	NA	NA	2.95 U	0.59 U
2-Butanone	NS	NA	NA	NA	NA	9.60 U	1.92 U
2-Chloroethylvinylether	NS	NA	NA	NA	NA	2.50 U	0.50 U
2-Chlorotoluene	5	NA	NA	NA	NA	1.80 U	0.36 U
2-Hexanone	50	NA	NA	NA	NA	11.1 U	2.23 U
4-Chlorotoluene	5	NA	NA	NA	NA	2.60 U	0.52 U
4-Isopropyltoluene	5	0.68 U	170 U	0.34 U	0.34 U	1.70 U	0.34 U
4-Methyl-2-pentanone	NS	NA	NA	NA	NA	9.1 U	1.82 U
Acetone	50	NA	NA	NA	NA	14.6 U	2.92 U
Acrylonitrile	5	NA	NA	NA	NA	38.3 U	7.65 U
Benzene	0.7	58	1,560	3.73	0.43 U	2.15 U	0.43 U
Bromobenzene	5	NA	NA	NA	NA	1.85 U	0.37 U
Bromochloromethane	5	NA	NA	NA	NA	2.65 U	0.53 U
Bromodichloromethane	50	NA	NA	NA	NA	2.50 U	0.50 U
Bromoform	50	NA	NA	NA	NA	1.85 U	0.37 U
Bromomethane	5	NA	NA	NA	NA	2.95 U	0.59 U
cis-1,2-Dichloroethene	5	NA	NA	NA	NA	2.10 U	0.42 U
cis-1,3-Dichloropropene	0.4	NA	NA	NA	NA	2.60 U	0.52 U
Carbon Disulfide	60	NA	NA	NA	NA	2.00 U	0.40 U
Carbon Tetrachloride	5	NA	NA	NA	NA	2.20 U	0.44 U
Chlorobenzene	5	NA	NA	NA	NA	2.40 U	0.48 U
Chlorodifluoromethane	NS	NA	NA	NA	NA	2.35 U	0.47 U
Chloroethane	5	NA	NA	NA	NA	4.70 U	0.94 U
Chloroform	7	NA	NA	NA	NA	2.30 U	0.46 U
Chloromethane	5	NA	NA	NA	NA	2.55 U	0.51 U
Dibromochloromethane	NS	NA	NA	NA	NA	2.15 U	0.43 U
Dibromoethane	NS	NA	NA	NA	NA	2.35 U	0.47 U
Dichlorodifluoromethane	5	NA	NA	NA	NA	2.45 U	0.49 U
Ethyl Benzene	5	22.9	1,700	0.41 U	0.41 U	2.05 U	0.41 U
Hexachlorobutadiene	0.5	NA	NA	NA	NA	2.70 U	0.54 U
Isopropylbenzene	5	4.82 J	220 U	1.63 J	0.44 U	2.20 U	0.44 U
m/p Xylene	5	41	5,130	9.35	0.86 U	19.8	0.86 U
ter-ButylMethylEther	10	421	112,000	1,370	0.50 U	413	29.7
Methylene Chloride	5	NA	NA	NA	NA	1.95 U	0.39 U
n-Butylbenzene	5	0.86 U	215 U	0.43 U	0.43 U	2.15 U	0.43 U
n-Propylbenzene	5	2.94 J	205 U	0.41 U	0.41 U	2.05 U	0.41 U
Naphthalene	10	0.66 U	165 U	0.33 U	0.33 U	1.65 U	0.33 U
o-Xylene	5	43.7	2,910	3.16 U	0.37 U	1.85 U	0.37 U
p-Diethylbenzene	NS	NA	NA	NA	NA	1.95 U	0.39 U
p-Ethyltoluene	NS	NA	NA	NA	NA	1.95 U	0.39 U
sec-Butylbenzene	5	0.72 U	180 U	0.36 U	0.36 U	1.80 U	0.36 U
Styrene	5	NA	NA	NA	NA	1.95 U	0.39 U
t-1,2-Dichloroethene	5	NA	NA	NA	NA	1.35 U	0.27 U
t-1,3-Dichloropropene	NS	NA	NA	NA	NA	1.85 U	0.37 U
TAME	NS	NA	NA	NA	NA	3.85 U	4.55 U
tert-Butylbenzene	5	0.88 U	220 U	0.44 U	0.44 U	2.20 U	0.44 U
Tertiary butyl alcohol	NS	NA	NA	NA	NA	44.6 U	8.92 U
Tetrachloroethene	NS	NA	NA	NA	NA	2.95 U	0.59 U
Toluene	5	13.3	1,840	0.45 U	0.45 U	2.25 U	0.45 U
Trichloroethene	NS	NA	NA	NA	NA	2.30 U	0.46 U
Trichlorofluoromethane	5	NA	NA	NA	NA	2.60 U	0.52 U
Vinyl Chloride	2	NA	NA	NA	NA	2.15 U	0.43 U
TVOCs		645	128,988	1,383	0	432.8	34.25

Notes:

All concentrations are ug/L (ppb)

(1) Class GA Ambient Water Quality Standard (AWQS), NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998

U - Indicates that the analyte was not detected above the laboratory MDL

NS - Not Specified

NA - Not Analyzed

Highlighted values indicate exceedance of AWQS

Table 4

Analytical Results for Groundwater - Semi-volatile Organic Compounds (EPA Method 8270)

291 Metropolitan Avenue - Brooklyn, New York

Client Sample ID: Sampling Date:	NYSDEC Groundwater Standards ⁽¹⁾	SB-1 GW 7/6/2010	SB-2 GW 7/6/2010	SB-3 GW 7/6/2010	SB-6 GW 7/6/2010	SB-8(GW) 8/24/2010	SB-10(GW) 8/24/2010
Semi-Volatile Organic Compounds by 8270							
1,2,4-Trichlorobenzene	5	NA	NA	NA	NA	0.92 U	0.92 U
1,2-Dichlorobenzene	3	NA	NA	NA	NA	0.71 U	0.71 U
1,2-Diphenylhydrazine	ND	NA	NA	NA	NA	0.87 U	0.87 U
1,3-Dichlorobenzene	3	NA	NA	NA	NA	0.82 U	0.82 U
1,4-Dichlorobenzene	3	NA	NA	NA	NA	0.74 U	0.74 U
2,3,4,6-Tetrachlorophenol	NS	NA	NA	NA	NA	1.07 U	1.07 U
2,4,5-Trichlorophenol	1	NA	NA	NA	NA	0.59 U	0.59 U
2,4,6-Trichlorophenol	NS	NA	NA	NA	NA	0.75 U	0.75 U
2,4-Dichlorophenol	1	NA	NA	NA	NA	0.98 U	0.98 U
2,4-Dimethylphenol	NS	NA	NA	NA	NA	1.03 U	1.03 U
2,4-Dinitrophenol	5	NA	NA	NA	NA	4.51 U	4.51 U
2,4-Dinitrotoluene	5	NA	NA	NA	NA	0.62 U	0.62 U
2,6-Dinitrotoluene	5	NA	NA	NA	NA	0.98 U	0.98 U
2-Chloronaphthalene	10	NA	NA	NA	NA	0.92 U	0.92 U
2-Chlorophenol	50	NA	NA	NA	NA	0.63 U	0.63 U
2-Methylnaphthalene	NS	NA	NA	NA	NA	1.11 U	0.82 U
2-Methylphenol	5	NA	NA	NA	NA	0.50 U	0.50 U
2-Nitroaniline	5	NA	NA	NA	NA	0.77 U	0.77 U
2-Nitrophenol	5	NA	NA	NA	NA	1.03 U	1.03 U
3+4-Methylphenols	50	NA	NA	NA	NA	0.17 U	0.17 U
3,3'-Dichlorobenzidine	5	NA	NA	NA	NA	0.68 U	0.68 U
3-Nitroaniline	5	NA	NA	NA	NA	0.60 U	0.60 U
4,6-Dinitro-2-methylphenol	NS	NA	NA	NA	NA	0.82 U	0.82 U
4-Bromophenyl phenyl ether	NS	NA	NA	NA	NA	0.85 U	0.85 U
4-Chloro-3-methylphenol	5	NA	NA	NA	NA	0.53 U	0.53 U
4-Chloroaniline	5	NA	NA	NA	NA	0.47 U	0.47 U
4-Chlorophenyl phenyl ether	NS	NA	NA	NA	NA	0.92 U	0.92 U
4-Nitroaniline	5	NA	NA	NA	NA	1.07 U	1.07 U
4-Nitrophenol	5	NA	NA	NA	NA	2.04 U	2.04 U
Acenaphthene	20	1.36 U	1.13 U	6.87 J	1.46 U	1.02 U	1.02 U
Acenaphthylene	20	1.24 U	1.03 U	1.55 U	1.33 U	0.93 U	0.93 U
Aniline	5	NA	NA	NA	NA	0.23 U	0.23 U
Anthracene	50*	1.12 U	0.93 U	3.94 J	1.20 U	0.84 U	0.84 U
Benzidine	5	NA	NA	NA	NA	28.5 U	28.5 U
Benz(a)anthracene	0.002	1.37 U	1.14 U	1.72 U	1.47 U	1.03 U	1.03 U
Benzo(a)pyrene	ND	1.21 U	1.01 U	1.52 U	1.30 U	0.91 U	0.91 U
Benzo(b)fluoranthene	0.002	1.23 U	1.02 U	1.53 U	1.31 U	0.92 U	0.92 U
Benzo(ghi)perylene	NS	1.40 U	1.17 U	1.75 U	1.50 U	1.05 U	1.05 U
Benzo(k)fluoranthene	0.002	1.39 U	1.16 U	1.73 U	1.49 U	1.04 U	1.04 U
Benzoic Acid	NS	NA	NA	NA	NA	10.3 U	10.3 U
Benzyl alcohol	NS	NA	NA	NA	NA	0.48 U	0.48 U
Bis(2-chloroethoxy)methane	5	NA	NA	NA	NA	0.95 U	0.95 U
Bis(2-chloroethyl)ether	1	NA	NA	NA	NA	0.57 U	0.57 U
Bis(2-Chloroisopropyl)ether	NS	NA	NA	NA	NA	0.77 U	0.77 U
Bis(2-ethylhexyl)phthalate	5	NA	NA	NA	NA	3.28 U	2.14 U
BenzylButylPhthalate	50	NA	NA	NA	NA	1.33 U	1.33 U
Carbazole	NS	NA	NA	NA	NA	1.08 U	1.08 U
Chrysene	0.002	1.27 U	1.06 U	1.58 U	1.36 U	0.95 U	0.95 U
Cresols	NS	NA	NA	NA	NA	0.67 U	0.67 U
Di-n-Butyl Phthalate	50	NA	NA	NA	NA	0.97 U	0.97 U
Di-n-octyl Phthalate	50*	NA	NA	NA	NA	1.11 U	1.11 U
Dibenzo(a,h)anthracene	50	1.16 U	0.97 U	1.45 U	1.24 U	0.87 U	0.87 U
Dibenzofuran	NS	NA	NA	NA	NA	0.8 U	0.8 U
Diethyl Phthalate	50	NA	NA	NA	NA	1.07 U	1.07 U
Dimethyl Phthalate	50	NA	NA	NA	NA	1.02 U	1.02 U
Fluoranthene	50	1.15 U	0.96 U	4.52 J	1.23 U	0.86 U	0.86 U
Fluorene	50	1.21 U	1.01 U	7.13 J	1.30 U	0.91 U	0.91 U
Hexachlorobenzene	0.04	NA	NA	NA	NA	0.73 U	0.73 U
Hexachlorobutadiene	0.5	NA	NA	NA	NA	1.05 U	1.05 U
Hexachlorocyclopentadiene	5	NA	NA	NA	NA	0.38 U	0.38 U
Hexachloroethane	5	NA	NA	NA	NA	0.99 U	0.99 U
Indeno(1,2,3-cd)pyrene	0.002	1.27 U	1.06 U	1.58 U	1.36 U	0.95 U	0.95 U
Isophorone	50	NA	NA	NA	NA	0.70 U	0.70 U
N-Nitrosodi-n-propylamine	50	NA	NA	NA	NA	0.74 U	0.74 U
N-Nitrosodimethylamine	NS	NA	NA	NA	NA	0.73 U	0.73 U
N-Nitrosodiphenylamine	50	NA	NA	NA	NA	1.10 U	1.10 U
Naphthalene	10	1.16 U	392	22.2	1.24 U	2.68 U	0.87 U
Nitrobenzene	0.4	NA	NA	NA	NA	0.91 U	0.91 U
Pentachlorophenol	1	NA	NA	NA	NA	0.81 U	0.81 U
Phenanthrene	50	1.20 U	1.10 J	24.9	1.29 U	0.92 U	0.9 U
Phenol	1	NA	NA	NA	NA	1.78 U	1.2 U
Pyrene	50	1.35 U	1.12 U	3.83 J	1.44 U	1.01 U	1.01 U
Pyridine	50	NA	NA	NA	NA	0.37 U	0.37 U

Notes:

All concentrations are ug/L (ppb)

(1) Class GA Ambient Water Quality Standard (AWQS), NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998

U - Indicates that the analyte was not detected above the laboratory MDL

NS - Not Specified

NA - Not Analyzed

Highlighted values indicate exceedance of AWQS

**APPENDIX A
BORING LOGS**



Boring Designation:	SB-7	Logged By:	DNE
Boring Location:	291 Metropolitan Avenue - Brooklyn, NY	Project Manager:	RW
Project Name:	Spill Investigation	Project Number:	MAB1001
Drilling Contractor:	Eastern Environmental Solutions	Drilling Method:	Direct Push
Driller Name:	Josh	Sampling Method:	Duel Core
Borehole Diameter:	2.5"	Borehole Depth:	20'
Start Time:	7:25	Completion Time:	8:00
Start Date:	8/24/2010	Completion Date:	8/24/2010

Depth (ft)	Advance (ft)	Recovery (ft)	Graphic Log	Soil Description	USCS Code	Notes
0	5	1.0		Fine sand, some silt (10YR5/3), Dry. Red brick and concrete	SM	PID - 2.2 ppm
5	5	2.0		Fine sand, silt (10YR3/3), Wet. Petroleum staining observed in the first foot of recovery.		PID - 194 ppm
10	5	3.5		Clayey sand, silt (10YR5/3), Wet.	SC	PID - 8.2 ppm
				Clayey sand, silt (10YR3/3), Wet.		PID - 20.1 ppm
15	5	3.5		Clayey sand, silt (10YR5/3), Wet.		PID - 46.3 ppm
				Fine sand, some silt (10YR3/3), Wet.	SM	PID - 109 ppm
20					E.O.B. @ 20'	



Boring Designation:	SB-8	Logged By:	DNE
Boring Location:	291 Metropolitan Avenue - Brooklyn, NY	Project Manager:	RW
Project Name:	Spill Investigation	Project Number:	MAB1001
Drilling Contractor:	Eastern Environmental Solutions	Drilling Method:	Direct Push
Driller Name:	Josh	Sampling Method:	Duel Core
Borehole Diameter:	2.5"	Borehole Depth:	20'
Start Time:	8:20	Completion Time:	9:30
Start Date:	8/24/2010	Completion Date:	8/24/2010

Depth (ft)	Advance (ft)	Recovery (ft)	Graphic Log	Soil Description	USCS Code	Notes
0	5	2.0		Fine sand, some silt (10YR3/3), Moist. Red brick and cobble	SM	PID - 1.9 ppm
5	5	2.5		Fine sand, silt (10YR7/4), Dry.		PID - 0.0 ppm
10	5	4.0		Fine sand, silt (10YR7/4), Moist.		PID - 0.0 ppm
				Fine sand, silt (10YR5/8), Moist.		PID - 0.0 ppm
15	5	5.0		Fine sand, silt (10YR7/4), Moist.		PID - 13.7 ppm
				Fine sand, silt (10YR7/4), Wet.		PID - 321 ppm
20				E.O.B. @ 20'		



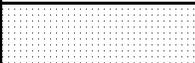
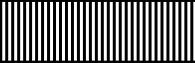
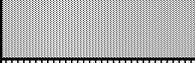
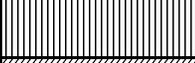
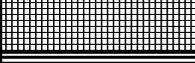
Boring Designation:	SB-9	Logged By:	DNE
Boring Location:	291 Metropolitan Avenue - Brooklyn, NY	Project Manager:	RW
Project Name:	Spill Investigation	Project Number:	MAB1001
Drilling Contractor:	Eastern Environmental Solutions	Drilling Method:	Direct Push
Driller Name:	Josh	Sampling Method:	macro core
Borehole Diameter:	2.5"	Borehole Depth:	10'
Start Time:	10:07	Completion Time:	10:55
Start Date:	8/24/2010	Completion Date:	8/24/2010

Depth (ft)	Advance (ft)	Recovery (ft)	Graphic Log	Soil Description	USCS Code	Notes
0	5	1.0		Fine sand, some silt (10YR3/3), Dry. Concrete	SM	PID - 0.7 ppm
5	5	4.0		Fine sand, silt (10YR3/4), Dry.		PID - 2.8 ppm
				Fine sand, silt (10YR7/4), Moist.		PID - 2.6 ppm
10				E.O.B. @ 10'		



Boring Designation:	SB-10	Logged By:	DNE
Boring Location:	291 Metropolitan Avenue - Brooklyn, NY	Project Manager:	RW
Project Name:	Spill Investigation	Project Number:	MAB1001
Drilling Contractor:	Eastern Environmental Solutions	Drilling Method:	Direct Push
Driller Name:	Josh	Sampling Method:	Duel Core
Borehole Diameter:	2.5"	Borehole Depth:	20'
Start Time:	11:00	Completion Time:	11:45
Start Date:	8/24/2010	Completion Date:	8/24/2010

Depth (ft)	Advance (ft)	Recovery (ft)	Graphic Log	Soil Description	USCS Code	Notes
0	5	2.0		Fine sand, some silt (10YR5/3), Moist. Red brick and concrete	SM	PID - 0.9 ppm
5	5	4.0		Fine sand, silt (10YR5/3), Moist.		PID - 1.7 ppm
				Fine sand, silt (10YR5/3), Moist.		PID - 4.4 ppm
10	5	3.0		Fine sand, silt (10YR3/3), Dry. Red brick		PID - 1.8 ppm
				Fine sand, silt (10YR5/3), Moist.		PID - 1.4 ppm
15	5	2.5		Fine sand, silt (10YR5/3), Moist.		PID - 5.3 ppm
				Fine sand, silt (10YR5/3), Moist.		PID - 8.1 ppm
20	5	4.0		Fine sand, silt (10YR5/3), Wet.		PID - 2.7 ppm
				Fine sand, silt (10YR5/3), Wet.		PID - 4.5 ppm
25					E.O.B. @ 25'	

USCS Code	Pattern	Pattern Name
GW		6.25% Grey
GP		12.5% Grey
GM		Vertical Stripe
GC		Diagonal Stripe
SW		25% Grey
SP		50% Grey
SM		Thin Vertical Stripe
SC		Thin Diagonal Stripe
ML		Diagonal Crosshatch
CL		Thin Reverse Diagonal Stripe
OL		Thin Horizontal Crosshatch
MH		Horizontal Stripe
CH		Reverse Diagonal Stripe
OH		75% Grey
PT		Thick Diagonal Crosshatch

**APPENDIX B
ANALYTICAL RESULTS**

Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Laboratory Identifier: 1008317

Received: 8/24/2010 14:25

Sampled by: Derek Ersbak

Client: PW Grosser Consulting Engineers PC

630 Johnson Avenue - Suite 7
Bohemia,
NY 11716-2618

Project: MAB1001

291 Metropolitan Ave
Brooklyn,
NY

Manager: Rocky Wenskus

Respectfully submitted,



Technical Director

NYS Lab ID # 10969

NJ Cert. # 73812

CT Cert. # PH0645

MA Cert. # NY061

PA Cert. #002

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Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-1

Client Sample ID: SB-7 (5-10')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 07:50

% Solid: 85.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B3132-3636	0.53	ND	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B3132-3636	0.60	ND	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B3132-3636	0.70	ND	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B3132-3636	0.73	ND	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B3132-3636	0.60	ND	ug/Kg	U
75-34-3	1,1-Dichloroethane	B3132-3636	0.66	ND	ug/Kg	U
75-35-4	1,1-Dichloroethene	B3132-3636	0.43	ND	ug/Kg	U
563-58-6	1,1-Dichloropropene	B3132-3636	0.61	ND	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B3132-3636	0.56	ND	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B3132-3636	0.82	ND	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B3132-3636	0.46	52.8	ug/Kg	
120-82-1	1,2,4-Trichlorobenzene	B3132-3636	0.39	ND	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B3132-3640	2.15	1740	ug/Kg	E
96-12-8	1,2-Dibromo-3-chloropropane	B3132-3636	0.53	ND	ug/Kg	U
106-93-4	1,2-Dibromoethane	B3132-3636	0.68	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B3132-3636	0.55	1.21	ug/Kg	J
107-06-2	1,2-Dichloroethane	B3132-3636	0.67	ND	ug/Kg	U
78-87-5	1,2-Dichloropropane	B3132-3636	0.68	ND	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B3132-3636	0.51	124	ug/Kg	
541-73-1	1,3-Dichlorobenzene	B3132-3636	0.61	ND	ug/Kg	U
142-28-9	1,3-Dichloropropane	B3132-3636	0.60	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B3132-3636	0.56	ND	ug/Kg	U
590-20-7	2,2-Dichloropropane	B3132-3636	0.68	ND	ug/Kg	U
78-93-3	2-Butanone	B3132-3636	2.58	ND	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B3132-3636	0.74	ND	ug/Kg	U
95-49-8	2-Chlorotoluene	B3132-3636	0.61	ND	ug/Kg	U
591-78-6	2-Hexanone	B3132-3636	2.30	ND	ug/Kg	U
106-43-4	4-Chlorotoluene	B3132-3636	0.58	ND	ug/Kg	U
99-87-6	4-Isopropyltoluene	B3132-3636	0.55	30.2	ug/Kg	
108-10-1	4-Methyl-2-pentanone	B3132-3636	2.49	ND	ug/Kg	U
67-64-1	Acetone	B3132-3636	3.02	8.39	ug/Kg	J
107-13-1	Acrylonitrile	B3132-3636	8.11	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-1

Client Sample ID: SB-7 (5-10')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 07:50

% Solid: 85.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
71-43-2	Benzene	B3132-3636	0.61	30.5	ug/Kg	
108-86-1	Bromobenzene	B3132-3636	0.59	ND	ug/Kg	U
74-97-5	Bromochloromethane	B3132-3636	0.67	ND	ug/Kg	U
75-27-4	Bromodichloromethane	B3132-3636	0.55	ND	ug/Kg	U
75-25-2	Bromoform	B3132-3636	0.56	ND	ug/Kg	U
74-83-9	Bromomethane	B3132-3636	0.57	ND	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B3132-3636	0.52	ND	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B3132-3636	0.59	ND	ug/Kg	U
75-15-0	Carbon disulfide	B3132-3636	0.55	ND	ug/Kg	U
56-23-5	Carbon Tetrachloride	B3132-3636	0.65	ND	ug/Kg	U
108-90-7	Chlorobenzene	B3132-3636	0.71	ND	ug/Kg	U
75-45-6	Chlorodifluoromethane	B3132-3636	1.02	ND	ug/Kg	U
75-00-3	Chloroethane	B3132-3636	0.81	ND	ug/Kg	U
67-66-3	Chloroform	B3132-3636	0.68	ND	ug/Kg	U
74-87-3	Chloromethane	B3132-3636	0.58	ND	ug/Kg	U
124-48-1	Dibromochloromethane	B3132-3636	0.53	ND	ug/Kg	U
74-95-3	Dibromomethane	B3132-3636	0.92	ND	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B3132-3636	0.43	ND	ug/Kg	U
100-41-4	Ethylbenzene	B3132-3636	0.60	101	ug/Kg	
87-68-3	Hexachlorobutadiene	B3132-3636	0.56	ND	ug/Kg	U
98-82-8	Isopropylbenzene	B3132-3636	0.51	27.3	ug/Kg	
108-38-3	m,p-xylene	B3132-3636	1.04	322	ug/Kg	
1634-04-4	Methyl t-butyl ether	B3132-3636	0.60	ND	ug/Kg	U
75-09-2	Methylene Chloride	B3132-3636	1.09	ND	ug/Kg	U
104-51-8	n-Butylbenzene	B3132-3636	0.56	38.6	ug/Kg	
103-65-1	n-Propylbenzene	B3132-3636	0.53	49.8	ug/Kg	
91-20-3	Naphthalene	B3132-3640	2.62	1120	ug/Kg	E
95-47-6	o-xylene	B3132-3640	2.27	741	ug/Kg	
105-05-5	p-Diethylbenzene	B3132-3636	0.53	163	ug/Kg	
622-96-8	p-Ethyltoluene	B3132-3640	2.44	997	ug/Kg	E
135-98-8	sec-Butylbenzene	B3132-3636	0.52	15.7	ug/Kg	
100-42-5	Styrene	B3132-3636	0.50	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-1

Client Sample ID: SB-7 (5-10')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 07:50

% Solid: 85.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
156-60-5	t-1,2-Dichloroethene	B3132-3636	0.53	ND	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B3132-3636	0.49	ND	ug/Kg	U
994-05-8	TAME	B3132-3636	0.73	ND	ug/Kg	U
98-06-6	tert-Butylbenzene	B3132-3636	0.61	ND	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B3132-3636	6.25	ND	ug/Kg	U
127-18-4	Tetrachloroethene	B3132-3636	0.52	ND	ug/Kg	U
108-88-3	Toluene	B3132-3640	2.79	593	ug/Kg	
79-01-6	Trichloroethene	B3132-3636	0.57	ND	ug/Kg	U
75-69-4	Trichlorofluoromethane	B3132-3636	0.65	ND	ug/Kg	U
75-01-4	Vinyl Chloride	B3132-3636	0.79	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B3132-3636	113.0 %	(84 - 126)	
460-00-4	4-BROMOFLUOROBENZENE	B3132-3636	95.9 %	(78 - 116)	
4774-33-8	DIBROMOFLUOROMETHANE	B3132-3636	100.0 %	(78 - 128)	
2037-26-5	TOLUENE-D8	B3132-3636	105.0 %	(86 - 109)	
17060-07-0	1,2-DICHLOROETHANE-D4	B3132-3640	95.8 %	(84 - 126)	
460-00-4	4-BROMOFLUOROBENZENE	B3132-3640	90.5 %	(78 - 116)	
4774-33-8	DIBROMOFLUOROMETHANE	B3132-3640	95.8 %	(78 - 128)	
2037-26-5	TOLUENE-D8	B3132-3640	102.0 %	(86 - 109)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-3

Client Sample ID: SB-8 (15-17.5')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/27/2010

Type: Grab

Collected: 8/24/2010 09:30

% Solid: 89.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B3134-3668	0.51	ND	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B3134-3668	0.58	ND	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B3134-3668	0.67	ND	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B3134-3668	0.70	ND	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B3134-3668	0.58	ND	ug/Kg	U
75-34-3	1,1-Dichloroethane	B3134-3668	0.63	ND	ug/Kg	U
75-35-4	1,1-Dichloroethene	B3134-3668	0.41	ND	ug/Kg	U
563-58-6	1,1-Dichloropropene	B3134-3668	0.59	ND	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B3134-3668	0.53	ND	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B3134-3668	0.79	ND	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B3134-3668	0.44	21.3	ug/Kg	
120-82-1	1,2,4-Trichlorobenzene	B3134-3668	0.38	ND	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B3134-3668	0.41	119	ug/Kg	
96-12-8	1,2-Dibromo-3-chloropropane	B3134-3668	0.51	ND	ug/Kg	U
106-93-4	1,2-Dibromoethane	B3134-3668	0.65	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B3134-3668	0.52	ND	ug/Kg	U
107-06-2	1,2-Dichloroethane	B3134-3668	0.64	ND	ug/Kg	U
78-87-5	1,2-Dichloropropane	B3134-3668	0.65	ND	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B3134-3668	0.49	1.18	ug/Kg	J
541-73-1	1,3-Dichlorobenzene	B3134-3668	0.59	ND	ug/Kg	U
142-28-9	1,3-Dichloropropane	B3134-3668	0.58	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B3134-3668	0.53	ND	ug/Kg	U
590-20-7	2,2-Dichloropropane	B3134-3668	0.65	ND	ug/Kg	U
78-93-3	2-Butanone	B3134-3668	2.46	ND	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B3134-3668	0.71	ND	ug/Kg	U
95-49-8	2-Chlorotoluene	B3134-3668	0.59	ND	ug/Kg	U
591-78-6	2-Hexanone	B3134-3668	2.20	ND	ug/Kg	U
106-43-4	4-Chlorotoluene	B3134-3668	0.56	ND	ug/Kg	U
99-87-6	4-Isopropyltoluene	B3134-3668	0.52	1.21	ug/Kg	J
108-10-1	4-Methyl-2-pentanone	B3134-3668	2.39	ND	ug/Kg	U
67-64-1	Acetone	B3134-3668	2.89	ND	ug/Kg	U
107-13-1	Acrylonitrile	B3134-3668	7.76	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-3

Client Sample ID: SB-8 (15-17.5')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/27/2010

Type: Grab

Collected: 8/24/2010 09:30

% Solid: 89.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
71-43-2	Benzene	B3134-3668	0.59	ND	ug/Kg	U
108-86-1	Bromobenzene	B3134-3668	0.57	ND	ug/Kg	U
74-97-5	Bromochloromethane	B3134-3668	0.64	ND	ug/Kg	U
75-27-4	Bromodichloromethane	B3134-3668	0.52	ND	ug/Kg	U
75-25-2	Bromoform	B3134-3668	0.53	ND	ug/Kg	U
74-83-9	Bromomethane	B3134-3668	0.54	ND	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B3134-3668	0.50	ND	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B3134-3668	0.57	ND	ug/Kg	U
75-15-0	Carbon disulfide	B3134-3668	0.52	ND	ug/Kg	U
56-23-5	Carbon Tetrachloride	B3134-3668	0.62	ND	ug/Kg	U
108-90-7	Chlorobenzene	B3134-3668	0.68	ND	ug/Kg	U
75-45-6	Chlorodifluoromethane	B3134-3668	0.98	ND	ug/Kg	U
75-00-3	Chloroethane	B3134-3668	0.78	ND	ug/Kg	U
67-66-3	Chloroform	B3134-3668	0.65	ND	ug/Kg	U
74-87-3	Chloromethane	B3134-3668	0.56	ND	ug/Kg	U
124-48-1	Dibromochloromethane	B3134-3668	0.51	ND	ug/Kg	U
74-95-3	Dibromomethane	B3134-3668	0.88	ND	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B3134-3668	0.41	ND	ug/Kg	U
100-41-4	Ethylbenzene	B3134-3668	0.58	ND	ug/Kg	U
87-68-3	Hexachlorobutadiene	B3134-3668	0.53	ND	ug/Kg	U
98-82-8	Isopropylbenzene	B3134-3668	0.49	6.78	ug/Kg	
108-38-3	m,p-xylene	B3134-3668	1.00	11.1	ug/Kg	J
1634-04-4	Methyl t-butyl ether	B3134-3668	0.58	ND	ug/Kg	U
75-09-2	Methylene Chloride	B3134-3668	1.04	ND	ug/Kg	U
104-51-8	n-Butylbenzene	B3134-3668	0.53	8.31	ug/Kg	
103-65-1	n-Propylbenzene	B3134-3668	0.51	11.1	ug/Kg	
91-20-3	Naphthalene	B3134-3668	0.50	16.7	ug/Kg	
95-47-6	o-xylene	B3134-3668	0.43	29.6	ug/Kg	
105-05-5	p-Diethylbenzene	B3134-3668	0.51	ND	ug/Kg	U
622-96-8	p-Ethyltoluene	B3134-3668	0.47	54.2	ug/Kg	
135-98-8	sec-Butylbenzene	B3134-3668	0.50	1.54	ug/Kg	J
100-42-5	Styrene	B3134-3668	0.48	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-3

Client Sample ID: SB-8 (15-17.5')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/27/2010

Type: Grab

Collected: 8/24/2010 09:30

% Solid: 89.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
156-60-5	t-1,2-Dichloroethene	B3134-3668	0.51	ND	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B3134-3668	0.47	ND	ug/Kg	U
994-05-8	TAME	B3134-3668	0.70	ND	ug/Kg	U
98-06-6	tert-Butylbenzene	B3134-3668	0.59	ND	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B3134-3668	5.98	ND	ug/Kg	U
127-18-4	Tetrachloroethene	B3134-3668	0.50	ND	ug/Kg	U
108-88-3	Toluene	B3134-3668	0.53	1.10	ug/Kg	J
79-01-6	Trichloroethene	B3134-3668	0.54	ND	ug/Kg	U
75-69-4	Trichlorofluoromethane	B3134-3668	0.62	ND	ug/Kg	U
75-01-4	Vinyl Chloride	B3134-3668	0.75	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B3134-3668	114.0 %	(84 - 126)	
460-00-4	4-BROMOFLUOROBENZENE	B3134-3668	103.0 %	(78 - 116)	
4774-33-8	DIBROMOFLUOROMETHANE	B3134-3668	102.0 %	(78 - 128)	
2037-26-5	TOLUENE-D8	B3134-3668	101.0 %	(86 - 109)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-5

Client Sample ID: SB-9 (7.5-10')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 10:55

% Solid: 78.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B3132-3638	0.58	ND	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B3132-3638	0.66	ND	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B3132-3638	0.76	ND	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B3132-3638	0.80	ND	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B3132-3638	0.66	ND	ug/Kg	U
75-34-3	1,1-Dichloroethane	B3132-3638	0.72	ND	ug/Kg	U
75-35-4	1,1-Dichloroethene	B3132-3638	0.47	ND	ug/Kg	U
563-58-6	1,1-Dichloropropene	B3132-3638	0.67	ND	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B3132-3638	0.61	ND	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B3132-3638	0.90	ND	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B3132-3638	0.51	5.38	ug/Kg	J
120-82-1	1,2,4-Trichlorobenzene	B3132-3638	0.43	ND	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B3132-3638	0.47	6.86	ug/Kg	
96-12-8	1,2-Dibromo-3-chloropropane	B3132-3638	0.58	ND	ug/Kg	U
106-93-4	1,2-Dibromoethane	B3132-3638	0.75	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B3132-3638	0.60	ND	ug/Kg	U
107-06-2	1,2-Dichloroethane	B3132-3638	0.74	ND	ug/Kg	U
78-87-5	1,2-Dichloropropane	B3132-3638	0.75	ND	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B3132-3638	0.56	1.75	ug/Kg	J
541-73-1	1,3-Dichlorobenzene	B3132-3638	0.67	ND	ug/Kg	U
142-28-9	1,3-Dichloropropane	B3132-3638	0.66	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B3132-3638	0.61	ND	ug/Kg	U
590-20-7	2,2-Dichloropropane	B3132-3638	0.75	ND	ug/Kg	U
78-93-3	2-Butanone	B3132-3638	2.82	ND	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B3132-3638	0.81	ND	ug/Kg	U
95-49-8	2-Chlorotoluene	B3132-3638	0.67	ND	ug/Kg	U
591-78-6	2-Hexanone	B3132-3638	2.51	ND	ug/Kg	U
106-43-4	4-Chlorotoluene	B3132-3638	0.63	ND	ug/Kg	U
99-87-6	4-Isopropyltoluene	B3132-3638	0.60	ND	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B3132-3638	2.73	ND	ug/Kg	U
67-64-1	Acetone	B3132-3638	3.30	ND	ug/Kg	U
107-13-1	Acrylonitrile	B3132-3638	8.88	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-5

Client Sample ID: SB-9 (7.5-10')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 10:55

% Solid: 78.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
71-43-2	Benzene	B3132-3638	0.67	ND	ug/Kg	U
108-86-1	Bromobenzene	B3132-3638	0.65	ND	ug/Kg	U
74-97-5	Bromochloromethane	B3132-3638	0.74	ND	ug/Kg	U
75-27-4	Bromodichloromethane	B3132-3638	0.60	ND	ug/Kg	U
75-25-2	Bromoform	B3132-3638	0.61	ND	ug/Kg	U
74-83-9	Bromomethane	B3132-3638	0.62	ND	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B3132-3638	0.57	ND	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B3132-3638	0.65	ND	ug/Kg	U
75-15-0	Carbon disulfide	B3132-3638	0.60	ND	ug/Kg	U
56-23-5	Carbon Tetrachloride	B3132-3638	0.71	ND	ug/Kg	U
108-90-7	Chlorobenzene	B3132-3638	0.77	ND	ug/Kg	U
75-45-6	Chlorodifluoromethane	B3132-3638	1.12	ND	ug/Kg	U
75-00-3	Chloroethane	B3132-3638	0.89	ND	ug/Kg	U
67-66-3	Chloroform	B3132-3638	0.75	ND	ug/Kg	U
74-87-3	Chloromethane	B3132-3638	0.63	ND	ug/Kg	U
124-48-1	Dibromochloromethane	B3132-3638	0.58	ND	ug/Kg	U
74-95-3	Dibromomethane	B3132-3638	1.00	ND	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B3132-3638	0.47	ND	ug/Kg	U
100-41-4	Ethylbenzene	B3132-3638	0.66	ND	ug/Kg	U
87-68-3	Hexachlorobutadiene	B3132-3638	0.61	ND	ug/Kg	U
98-82-8	Isopropylbenzene	B3132-3638	0.56	ND	ug/Kg	U
108-38-3	m,p-xylene	B3132-3638	1.14	2.56	ug/Kg	J
1634-04-4	Methyl t-butyl ether	B3132-3638	0.66	ND	ug/Kg	U
75-09-2	Methylene Chloride	B3132-3638	1.19	ND	ug/Kg	U
104-51-8	n-Butylbenzene	B3132-3638	0.61	ND	ug/Kg	U
103-65-1	n-Propylbenzene	B3132-3638	0.58	0.79	ug/Kg	J
91-20-3	Naphthalene	B3132-3638	0.57	8.58	ug/Kg	
95-47-6	o-xylene	B3132-3638	0.50	0.78	ug/Kg	J
105-05-5	p-Diethylbenzene	B3132-3638	0.58	ND	ug/Kg	U
622-96-8	p-Ethyltoluene	B3132-3638	0.53	4.00	ug/Kg	J
135-98-8	sec-Butylbenzene	B3132-3638	0.57	ND	ug/Kg	U
100-42-5	Styrene	B3132-3638	0.55	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-5

Client Sample ID: SB-9 (7.5-10')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 10:55

% Solid: 78.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
156-60-5	t-1,2-Dichloroethene	B3132-3638	0.58	ND	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B3132-3638	0.53	ND	ug/Kg	U
994-05-8	TAME	B3132-3638	0.80	ND	ug/Kg	U
98-06-6	tert-Butylbenzene	B3132-3638	0.67	ND	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B3132-3638	6.85	ND	ug/Kg	U
127-18-4	Tetrachloroethene	B3132-3638	0.57	ND	ug/Kg	U
108-88-3	Toluene	B3132-3638	0.61	ND	ug/Kg	U
79-01-6	Trichloroethene	B3132-3638	0.62	ND	ug/Kg	U
75-69-4	Trichlorofluoromethane	B3132-3638	0.71	ND	ug/Kg	U
75-01-4	Vinyl Chloride	B3132-3638	0.86	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B3132-3638	92.0 %	(84 - 126)	
460-00-4	4-BROMOFLUOROBENZENE	B3132-3638	90.3 %	(78 - 116)	
4774-33-8	DIBROMOFLUOROMETHANE	B3132-3638	98.5 %	(78 - 128)	
2037-26-5	TOLUENE-D8	B3132-3638	98.3 %	(86 - 109)	



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8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-6

Client Sample ID: SB-10 (17.5-20')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 11:45

% Solid: 87%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B3132-3639	0.53	ND	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B3132-3639	0.60	ND	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B3132-3639	0.69	ND	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B3132-3639	0.72	ND	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B3132-3639	0.60	ND	ug/Kg	U
75-34-3	1,1-Dichloroethane	B3132-3639	0.66	ND	ug/Kg	U
75-35-4	1,1-Dichloroethene	B3132-3639	0.43	ND	ug/Kg	U
563-58-6	1,1-Dichloropropene	B3132-3639	0.61	ND	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B3132-3639	0.55	ND	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B3132-3639	0.82	ND	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B3132-3639	0.46	4.34	ug/Kg	J
120-82-1	1,2,4-Trichlorobenzene	B3132-3639	0.39	ND	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B3132-3639	0.43	0.88	ug/Kg	J
96-12-8	1,2-Dibromo-3-chloropropane	B3132-3639	0.53	ND	ug/Kg	U
106-93-4	1,2-Dibromoethane	B3132-3639	0.68	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B3132-3639	0.54	ND	ug/Kg	U
107-06-2	1,2-Dichloroethane	B3132-3639	0.67	ND	ug/Kg	U
78-87-5	1,2-Dichloropropane	B3132-3639	0.68	ND	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B3132-3639	0.51	ND	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B3132-3639	0.61	ND	ug/Kg	U
142-28-9	1,3-Dichloropropane	B3132-3639	0.60	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B3132-3639	0.55	ND	ug/Kg	U
590-20-7	2,2-Dichloropropane	B3132-3639	0.68	ND	ug/Kg	U
78-93-3	2-Butanone	B3132-3639	2.55	ND	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B3132-3639	0.74	ND	ug/Kg	U
95-49-8	2-Chlorotoluene	B3132-3639	0.61	ND	ug/Kg	U
591-78-6	2-Hexanone	B3132-3639	2.28	ND	ug/Kg	U
106-43-4	4-Chlorotoluene	B3132-3639	0.57	ND	ug/Kg	U
99-87-6	4-Isopropyltoluene	B3132-3639	0.54	ND	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B3132-3639	2.47	ND	ug/Kg	U
67-64-1	Acetone	B3132-3639	2.99	8.61	ug/Kg	J
107-13-1	Acrylonitrile	B3132-3639	8.04	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-6

Client Sample ID: SB-10 (17.5-20')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 11:45

% Solid: 87%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
71-43-2	Benzene	B3132-3639	0.61	ND	ug/Kg	U
108-86-1	Bromobenzene	B3132-3639	0.59	ND	ug/Kg	U
74-97-5	Bromochloromethane	B3132-3639	0.67	ND	ug/Kg	U
75-27-4	Bromodichloromethane	B3132-3639	0.54	ND	ug/Kg	U
75-25-2	Bromoform	B3132-3639	0.55	ND	ug/Kg	U
74-83-9	Bromomethane	B3132-3639	0.56	ND	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B3132-3639	0.52	ND	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B3132-3639	0.59	ND	ug/Kg	U
75-15-0	Carbon disulfide	B3132-3639	0.54	ND	ug/Kg	U
56-23-5	Carbon Tetrachloride	B3132-3639	0.64	ND	ug/Kg	U
108-90-7	Chlorobenzene	B3132-3639	0.70	ND	ug/Kg	U
75-45-6	Chlorodifluoromethane	B3132-3639	1.01	ND	ug/Kg	U
75-00-3	Chloroethane	B3132-3639	0.81	ND	ug/Kg	U
67-66-3	Chloroform	B3132-3639	0.68	ND	ug/Kg	U
74-87-3	Chloromethane	B3132-3639	0.57	ND	ug/Kg	U
124-48-1	Dibromochloromethane	B3132-3639	0.53	ND	ug/Kg	U
74-95-3	Dibromomethane	B3132-3639	0.91	ND	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B3132-3639	0.43	ND	ug/Kg	U
100-41-4	Ethylbenzene	B3132-3639	0.60	ND	ug/Kg	U
87-68-3	Hexachlorobutadiene	B3132-3639	0.55	ND	ug/Kg	U
98-82-8	Isopropylbenzene	B3132-3639	0.51	ND	ug/Kg	U
108-38-3	m,p-xylene	B3132-3639	1.03	ND	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B3132-3639	0.60	ND	ug/Kg	U
75-09-2	Methylene Chloride	B3132-3639	1.08	8.71	ug/Kg	
104-51-8	n-Butylbenzene	B3132-3639	0.55	ND	ug/Kg	U
103-65-1	n-Propylbenzene	B3132-3639	0.53	ND	ug/Kg	U
91-20-3	Naphthalene	B3132-3639	0.52	6.08	ug/Kg	
95-47-6	o-xylene	B3132-3639	0.45	ND	ug/Kg	U
105-05-5	p-Diethylbenzene	B3132-3639	0.53	ND	ug/Kg	U
622-96-8	p-Ethyltoluene	B3132-3639	0.48	ND	ug/Kg	U
135-98-8	sec-Butylbenzene	B3132-3639	0.52	ND	ug/Kg	U
100-42-5	Styrene	B3132-3639	0.49	ND	ug/Kg	U



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208 Route 109, Farmingdale NY 11735
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8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-6

Client Sample ID: SB-10 (17.5-20')

Matrix: Soil

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 11:45

% Solid: 87%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
156-60-5	t-1,2-Dichloroethene	B3132-3639	0.53	ND	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B3132-3639	0.48	ND	ug/Kg	U
994-05-8	TAME	B3132-3639	0.72	ND	ug/Kg	U
98-06-6	tert-Butylbenzene	B3132-3639	0.61	ND	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B3132-3639	6.20	ND	ug/Kg	U
127-18-4	Tetrachloroethene	B3132-3639	0.52	ND	ug/Kg	U
108-88-3	Toluene	B3132-3639	0.55	ND	ug/Kg	U
79-01-6	Trichloroethene	B3132-3639	0.56	ND	ug/Kg	U
75-69-4	Trichlorofluoromethane	B3132-3639	0.64	ND	ug/Kg	U
75-01-4	Vinyl Chloride	B3132-3639	0.78	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B3132-3639	95.1 %	(84 - 126)	
460-00-4	4-BROMOFLUOROBENZENE	B3132-3639	89.1 %	(78 - 116)	
4774-33-8	DIBROMOFLUOROMETHANE	B3132-3639	100.0 %	(78 - 128)	
2037-26-5	TOLUENE-D8	B3132-3639	96.5 %	(86 - 109)	



Environmental Testing Laboratories, Inc.

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Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-8

Client Sample ID: SB-8 (GW)

Collected: 8/24/2010 09:45

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/27/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	C3649-4434	2.10	ND	ug/L	U
71-55-6	1,1,1-Trichloroethane	C3649-4434	2.60	ND	ug/L	U
79-34-5	1,1,2,2-Tetrachloroethane	C3649-4434	2.30	ND	ug/L	U
79-00-5	1,1,2-Trichloroethane	C3649-4434	2.55	ND	ug/L	U
76-13-1	1,1,2-Trichlorotrifluoroethane	C3649-4434	2.35	ND	ug/L	U
75-34-3	1,1-Dichloroethane	C3649-4434	1.50	ND	ug/L	U
75-35-4	1,1-Dichloroethene	C3649-4434	1.85	ND	ug/L	U
563-58-6	1,1-Dichloropropene	C3649-4434	1.80	ND	ug/L	U
87-61-6	1,2,3-Trichlorobenzene	C3649-4434	1.80	ND	ug/L	U
96-18-4	1,2,3-Trichloropropane	C3649-4434	2.70	ND	ug/L	U
95-93-2	1,2,4,5-Tetramethylbenzene	C3649-4434	1.75	ND	ug/L	U
120-82-1	1,2,4-Trichlorobenzene	C3649-4434	2.25	ND	ug/L	U
95-63-6	1,2,4-Trimethylbenzene	C3649-4434	2.20	ND	ug/L	U
96-12-8	1,2-Dibromo-3-chloropropane	C3649-4434	1.40	ND	ug/L	U
106-93-4	1,2-Dibromoethane	C3649-4434	2.35	ND	ug/L	U
95-50-1	1,2-Dichlorobenzene	C3649-4434	2.45	ND	ug/L	U
107-06-2	1,2-Dichloroethane	C3649-4434	2.50	ND	ug/L	U
78-87-5	1,2-Dichloropropane	C3649-4434	2.60	ND	ug/L	U
108-67-8	1,3,5-Trimethylbenzene	C3649-4434	2.15	ND	ug/L	U
541-73-1	1,3-Dichlorobenzene	C3649-4434	1.90	ND	ug/L	U
142-28-9	1,3-Dichloropropane	C3649-4434	2.30	ND	ug/L	U
106-46-7	1,4-Dichlorobenzene	C3649-4434	2.00	ND	ug/L	U
590-20-7	2,2-Dichloropropane	C3649-4434	2.95	ND	ug/L	U
78-93-3	2-Butanone	C3649-4434	9.60	ND	ug/L	U
110-75-8	2-Chloroethylvinylether	C3649-4434	2.50	ND	ug/L	U
95-49-8	2-Chlorotoluene	C3649-4434	1.80	ND	ug/L	U
591-78-6	2-Hexanone	C3649-4434	11.1	ND	ug/L	U
106-43-4	4-Chlorotoluene	C3649-4434	2.60	ND	ug/L	U
99-87-6	4-Isopropyltoluene	C3649-4434	1.70	ND	ug/L	U
108-10-1	4-Methyl-2-pentanone	C3649-4434	9.10	ND	ug/L	U
67-64-1	Acetone	C3649-4434	14.6	ND	ug/L	U
107-13-1	Acrylonitrile	C3649-4434	38.3	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-8

Client Sample ID: SB-8 (GW)

Matrix: Liquid

Remarks: See Case Narrative

Analyzed Date: 8/27/2010

Type: Grab

Collected: 8/24/2010 09:45

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
71-43-2	Benzene	C3649-4434	2.15	ND	ug/L	U
108-86-1	Bromobenzene	C3649-4434	1.85	ND	ug/L	U
74-97-5	Bromochloromethane	C3649-4434	2.65	ND	ug/L	U
75-27-4	Bromodichloromethane	C3649-4434	2.50	ND	ug/L	U
75-25-2	Bromoform	C3649-4434	1.85	ND	ug/L	U
74-83-9	Bromomethane	C3649-4434	2.95	ND	ug/L	U
156-59-2	c-1,2-Dichloroethene	C3649-4434	2.10	ND	ug/L	U
10061-01-5	c-1,3-Dichloropropene	C3649-4434	2.60	ND	ug/L	U
75-15-0	Carbon disulfide	C3649-4434	2.00	ND	ug/L	U
56-23-5	Carbon Tetrachloride	C3649-4434	2.20	ND	ug/L	U
108-90-7	Chlorobenzene	C3649-4434	2.40	ND	ug/L	U
75-45-6	Chlorodifluoromethane	C3649-4434	2.35	ND	ug/L	U
75-00-3	Chloroethane	C3649-4434	4.70	ND	ug/L	U
67-66-3	Chloroform	C3649-4434	2.30	ND	ug/L	U
74-87-3	Chloromethane	C3649-4434	2.55	ND	ug/L	U
124-48-1	Dibromochloromethane	C3649-4434	2.15	ND	ug/L	U
74-95-3	Dibromomethane	C3649-4434	2.35	ND	ug/L	U
75-71-8	Dichlorodifluoromethane	C3649-4434	2.45	ND	ug/L	U
100-41-4	Ethylbenzene	C3649-4434	2.05	ND	ug/L	U
87-68-3	Hexachlorobutadiene	C3649-4434	2.70	ND	ug/L	U
98-82-8	Isopropylbenzene	C3649-4434	2.20	ND	ug/L	U
108-38-3	m,p-xylene	C3649-4434	4.30	19.8	ug/L	J
1634-04-4	Methyl t-butyl ether	C3649-4434	2.50	413	ug/L	
75-09-2	Methylene Chloride	C3649-4434	1.95	ND	ug/L	U
104-51-8	n-Butylbenzene	C3649-4434	2.15	ND	ug/L	U
103-65-1	n-Propylbenzene	C3649-4434	2.05	ND	ug/L	U
91-20-3	Naphthalene	C3649-4434	1.65	ND	ug/L	U
95-47-6	o-xylene	C3649-4434	1.85	ND	ug/L	U
105-05-5	p-Diethylbenzene	C3649-4434	1.95	ND	ug/L	U
622-96-8	p-Ethyltoluene	C3649-4434	1.95	ND	ug/L	U
135-98-8	sec-Butylbenzene	C3649-4434	1.80	ND	ug/L	U
100-42-5	Styrene	C3649-4434	1.95	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
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8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-8

Client Sample ID: SB-8 (GW)

Matrix: Liquid

Remarks: See Case Narrative

Analyzed Date: 8/27/2010

Type: Grab

Collected: 8/24/2010 09:45

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
156-60-5	t-1,2-Dichloroethene	C3649-4434	1.35	ND	ug/L	U
10061-02-6	t-1,3-Dichloropropene	C3649-4434	1.85	ND	ug/L	U
994-05-8	TAME	C3649-4434	3.85	ND	ug/L	U
98-06-6	tert-Butylbenzene	C3649-4434	2.20	ND	ug/L	U
75-65-0	Tertiary butyl alcohol	C3649-4434	44.6	ND	ug/L	U
127-18-4	Tetrachloroethene	C3649-4434	2.95	ND	ug/L	U
108-88-3	Toluene	C3649-4434	2.25	ND	ug/L	U
79-01-6	Trichloroethene	C3649-4434	2.30	ND	ug/L	U
75-69-4	Trichlorofluoromethane	C3649-4434	2.60	ND	ug/L	U
75-01-4	Vinyl Chloride	C3649-4434	2.15	ND	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	C3649-4434	100.0 %	(68 - 135)	
460-00-4	4-BROMOFLUOROBENZENE	C3649-4434	97.2 %	(86 - 112)	
4774-33-8	DIBROMOFLUOROMETHANE	C3649-4434	104.0 %	(84 - 117)	
2037-26-5	TOLUENE-D8	C3649-4434	99.2 %	(92 - 108)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-9

Client Sample ID: SB-10 (GW)

Collected: 8/24/2010 11:50

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	C3646-4384	0.42	ND	ug/L	U
71-55-6	1,1,1-Trichloroethane	C3646-4384	0.52	ND	ug/L	U
79-34-5	1,1,2,2-Tetrachloroethane	C3646-4384	0.46	ND	ug/L	U
79-00-5	1,1,2-Trichloroethane	C3646-4384	0.51	ND	ug/L	U
76-13-1	1,1,2-Trichlorotrifluoroethane	C3646-4384	0.47	ND	ug/L	U
75-34-3	1,1-Dichloroethane	C3646-4384	0.30	ND	ug/L	U
75-35-4	1,1-Dichloroethene	C3646-4384	0.37	ND	ug/L	U
563-58-6	1,1-Dichloropropene	C3646-4384	0.36	ND	ug/L	U
87-61-6	1,2,3-Trichlorobenzene	C3646-4384	0.36	ND	ug/L	U
96-18-4	1,2,3-Trichloropropane	C3646-4384	0.54	ND	ug/L	U
95-93-2	1,2,4,5-Tetramethylbenzene	C3646-4384	0.35	ND	ug/L	U
120-82-1	1,2,4-Trichlorobenzene	C3646-4384	0.45	ND	ug/L	U
95-63-6	1,2,4-Trimethylbenzene	C3646-4384	0.44	ND	ug/L	U
96-12-8	1,2-Dibromo-3-chloropropane	C3646-4384	0.28	ND	ug/L	U
106-93-4	1,2-Dibromoethane	C3646-4384	0.47	ND	ug/L	U
95-50-1	1,2-Dichlorobenzene	C3646-4384	0.49	ND	ug/L	U
107-06-2	1,2-Dichloroethane	C3646-4384	0.50	ND	ug/L	U
78-87-5	1,2-Dichloropropane	C3646-4384	0.52	ND	ug/L	U
108-67-8	1,3,5-Trimethylbenzene	C3646-4384	0.43	ND	ug/L	U
541-73-1	1,3-Dichlorobenzene	C3646-4384	0.38	ND	ug/L	U
142-28-9	1,3-Dichloropropane	C3646-4384	0.46	ND	ug/L	U
106-46-7	1,4-Dichlorobenzene	C3646-4384	0.40	ND	ug/L	U
590-20-7	2,2-Dichloropropane	C3646-4384	0.59	ND	ug/L	U
78-93-3	2-Butanone	C3646-4384	1.92	ND	ug/L	U
110-75-8	2-Chloroethylvinylether	C3646-4384	0.50	ND	ug/L	U
95-49-8	2-Chlorotoluene	C3646-4384	0.36	ND	ug/L	U
591-78-6	2-Hexanone	C3646-4384	2.23	ND	ug/L	U
106-43-4	4-Chlorotoluene	C3646-4384	0.52	ND	ug/L	U
99-87-6	4-Isopropyltoluene	C3646-4384	0.34	ND	ug/L	U
108-10-1	4-Methyl-2-pentanone	C3646-4384	1.82	ND	ug/L	U
67-64-1	Acetone	C3646-4384	2.92	ND	ug/L	U
107-13-1	Acrylonitrile	C3646-4384	7.65	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-9

Client Sample ID: SB-10 (GW)

Collected: 8/24/2010 11:50

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
71-43-2	Benzene	C3646-4384	0.43	ND	ug/L	U
108-86-1	Bromobenzene	C3646-4384	0.37	ND	ug/L	U
74-97-5	Bromochloromethane	C3646-4384	0.53	ND	ug/L	U
75-27-4	Bromodichloromethane	C3646-4384	0.50	ND	ug/L	U
75-25-2	Bromoform	C3646-4384	0.37	ND	ug/L	U
74-83-9	Bromomethane	C3646-4384	0.59	ND	ug/L	U
156-59-2	c-1,2-Dichloroethene	C3646-4384	0.42	ND	ug/L	U
10061-01-5	c-1,3-Dichloropropene	C3646-4384	0.52	ND	ug/L	U
75-15-0	Carbon disulfide	C3646-4384	0.40	ND	ug/L	U
56-23-5	Carbon Tetrachloride	C3646-4384	0.44	ND	ug/L	U
108-90-7	Chlorobenzene	C3646-4384	0.48	ND	ug/L	U
75-45-6	Chlorodifluoromethane	C3646-4384	0.47	ND	ug/L	U
75-00-3	Chloroethane	C3646-4384	0.94	ND	ug/L	U
67-66-3	Chloroform	C3646-4384	0.46	ND	ug/L	U
74-87-3	Chloromethane	C3646-4384	0.51	ND	ug/L	U
124-48-1	Dibromochloromethane	C3646-4384	0.43	ND	ug/L	U
74-95-3	Dibromomethane	C3646-4384	0.47	ND	ug/L	U
75-71-8	Dichlorodifluoromethane	C3646-4384	0.49	ND	ug/L	U
100-41-4	Ethylbenzene	C3646-4384	0.41	ND	ug/L	U
87-68-3	Hexachlorobutadiene	C3646-4384	0.54	ND	ug/L	U
98-82-8	Isopropylbenzene	C3646-4384	0.44	ND	ug/L	U
108-38-3	m,p-xylene	C3646-4384	0.86	ND	ug/L	U
1634-04-4	Methyl t-butyl ether	C3646-4384	0.50	29.7	ug/L	
75-09-2	Methylene Chloride	C3646-4384	0.39	ND	ug/L	U
104-51-8	n-Butylbenzene	C3646-4384	0.43	ND	ug/L	U
103-65-1	n-Propylbenzene	C3646-4384	0.41	ND	ug/L	U
91-20-3	Naphthalene	C3646-4384	0.33	ND	ug/L	U
95-47-6	o-xylene	C3646-4384	0.37	ND	ug/L	U
105-05-5	p-Diethylbenzene	C3646-4384	0.39	ND	ug/L	U
622-96-8	p-Ethyltoluene	C3646-4384	0.39	ND	ug/L	U
135-98-8	sec-Butylbenzene	C3646-4384	0.36	ND	ug/L	U
100-42-5	Styrene	C3646-4384	0.39	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Volatiles - EPA 8260B

Sample: 1008317-9

Client Sample ID: SB-10 (GW)

Matrix: Liquid

Remarks: See Case Narrative

Analyzed Date: 8/25/2010

Type: Grab

Collected: 8/24/2010 11:50

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
156-60-5	t-1,2-Dichloroethene	C3646-4384	0.27	ND	ug/L	U
10061-02-6	t-1,3-Dichloropropene	C3646-4384	0.37	ND	ug/L	U
994-05-8	TAME	C3646-4384	0.77	4.55	ug/L	J
98-06-6	tert-Butylbenzene	C3646-4384	0.44	ND	ug/L	U
75-65-0	Tertiary butyl alcohol	C3646-4384	8.92	ND	ug/L	U
127-18-4	Tetrachloroethene	C3646-4384	0.59	ND	ug/L	U
108-88-3	Toluene	C3646-4384	0.45	ND	ug/L	U
79-01-6	Trichloroethene	C3646-4384	0.46	ND	ug/L	U
75-69-4	Trichlorofluoromethane	C3646-4384	0.52	ND	ug/L	U
75-01-4	Vinyl Chloride	C3646-4384	0.43	ND	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	C3646-4384	110.0 %	(68 - 135)	
460-00-4	4-BROMOFLUOROBENZENE	C3646-4384	110.0 %	(86 - 112)	
4774-33-8	DIBROMOFLUOROMETHANE	C3646-4384	114.0 %	(84 - 117)	
2037-26-5	TOLUENE-D8	C3646-4384	97.0 %	(92 - 108)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-1

Client Sample ID: SB-7 (5-10')

Matrix: Soil

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Type: Grab

Collected: 8/24/2010 07:50

% Solid: 85.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2498-2409	48.4	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2498-2409	36.0	ND	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2498-2409	35.2	ND	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2498-2409	39.1	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2498-2409	38.0	ND	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2498-2409	46.1	ND	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2498-2409	25.3	ND	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2498-2409	43.8	ND	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2498-2409	38.2	ND	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2498-2409	48.7	ND	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2498-2409	410	ND	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2498-2409	69.8	ND	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2498-2409	48.0	ND	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2498-2409	56.1	ND	ug/Kg	U
95-57-8	2-Chlorophenol	C2498-2409	56.1	ND	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2498-2409	46.2	1870	ug/Kg	
95-48-7	2-Methylphenol	C2498-2409	41.7	ND	ug/Kg	U
88-74-4	2-Nitroaniline	C2498-2409	60.7	ND	ug/Kg	U
88-75-5	2-Nitrophenol	C2498-2409	35.4	ND	ug/Kg	U
106-44-5	3+4-Methylphenol	C2498-2409	36.0	ND	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2498-2409	56.1	ND	ug/Kg	U
99-09-2	3-Nitroaniline	C2498-2409	20.0	ND	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2498-2409	509	ND	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2498-2409	52.9	ND	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2498-2409	43.4	ND	ug/Kg	U
106-47-8	4-Chloroaniline	C2498-2409	44.4	ND	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2498-2409	45.3	ND	ug/Kg	U
100-01-6	4-Nitroaniline	C2498-2409	114	ND	ug/Kg	U
100-02-7	4-Nitrophenol	C2498-2409	776	ND	ug/Kg	U
83-32-9	Acenaphthene	C2498-2409	49.0	ND	ug/Kg	U
208-96-8	Acenaphthylene	C2498-2409	40.0	66.9	ug/Kg	J
62-53-3	Aniline	C2498-2409	36.2	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-1

Client Sample ID: SB-7 (5-10')

Matrix: Soil

Type: Grab

Collected: 8/24/2010 07:50

% Solid: 85.9%

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-12-7	Anthracene	C2498-2409	51.8	57.6	ug/Kg	J
92-87-5	Benzidine	C2498-2409	1020	ND	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2498-2409	49.2	78.8	ug/Kg	J
50-32-8	Benzo(a)pyrene	C2498-2409	60.7	ND	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2498-2409	48.3	ND	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2498-2409	88.9	ND	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2498-2409	88.6	ND	ug/Kg	U
65-85-0	Benzoic acid	C2498-2409	6820	ND	ug/Kg	U
100-51-6	Benzyl alcohol	C2498-2409	68.7	ND	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2498-2409	48.2	ND	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2498-2409	55.1	ND	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2498-2409	42.7	ND	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2498-2409	76.3	ND	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2498-2409	61.5	ND	ug/Kg	U
86-74-8	Carbazole	C2498-2409	67.1	ND	ug/Kg	U
218-01-9	Chrysene	C2498-2409	61.6	136	ug/Kg	J
	Cresols	C2498-2409	77.7	ND	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2498-2409	65.5	ND	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2498-2409	57.3	ND	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2498-2409	65.0	ND	ug/Kg	U
132-64-9	Dibenzofuran	C2498-2409	38.9	43.9	ug/Kg	J
84-66-2	Diethyl phthalate	C2498-2409	76.1	ND	ug/Kg	U
131-11-3	Dimethyl phthalate	C2498-2409	56.2	ND	ug/Kg	U
206-44-0	Fluoranthene	C2498-2409	64.1	161	ug/Kg	J
86-73-7	Fluorene	C2498-2409	46.8	100	ug/Kg	J
118-74-1	Hexachlorobenzene	C2498-2409	49.8	ND	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2498-2409	46.6	ND	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2498-2409	360	ND	ug/Kg	U
67-72-1	Hexachloroethane	C2498-2409	51.8	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2498-2409	53.8	ND	ug/Kg	U
78-59-1	Isophorone	C2498-2409	53.2	ND	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2498-2409	35.2	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-1

Client Sample ID: SB-7 (5-10')

Matrix: Soil

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Type: Grab

Collected: 8/24/2010 07:50

% Solid: 85.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
62-75-9	N-Nitrosodimethylamine	C2498-2409	73.9	ND	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2498-2409	63.4	ND	ug/Kg	U
91-20-3	Naphthalene	C2498-2409	46.8	1010	ug/Kg	
98-95-3	Nitrobenzene	C2498-2409	45.1	ND	ug/Kg	U
87-86-5	Pentachlorophenol	C2498-2409	441	ND	ug/Kg	U
85-01-8	Phenanthrene	C2498-2409	53.0	328	ug/Kg	J
108-95-2	Phenol	C2498-2409	30.4	ND	ug/Kg	U
129-00-0	Pyrene	C2498-2409	43.1	208	ug/Kg	J
110-86-1	Pyridine	C2498-2409	66.7	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2498-2409	69.3 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2498-2409	68.6 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2498-2409	56.8 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2498-2409	57.4 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2498-2409	57.8 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2498-2409	74.1 %	(18 - 137)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-3

Client Sample ID: SB-8 (15-17.5')

Matrix: Soil

Type: Grab

Collected: 8/24/2010 09:30

% Solid: 89.9%

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2498-2408	46.3	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2498-2408	34.4	ND	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2498-2408	33.6	ND	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2498-2408	37.4	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2498-2408	36.3	ND	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2498-2408	44.0	ND	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2498-2408	24.1	ND	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2498-2408	41.8	ND	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2498-2408	36.5	ND	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2498-2408	46.5	ND	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2498-2408	392	ND	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2498-2408	66.7	ND	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2498-2408	45.8	ND	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2498-2408	53.6	ND	ug/Kg	U
95-57-8	2-Chlorophenol	C2498-2408	53.6	ND	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2498-2408	44.2	ND	ug/Kg	U
95-48-7	2-Methylphenol	C2498-2408	39.8	ND	ug/Kg	U
88-74-4	2-Nitroaniline	C2498-2408	58.0	ND	ug/Kg	U
88-75-5	2-Nitrophenol	C2498-2408	33.8	ND	ug/Kg	U
106-44-5	3+4-Methylphenol	C2498-2408	34.4	ND	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2498-2408	53.6	ND	ug/Kg	U
99-09-2	3-Nitroaniline	C2498-2408	19.1	ND	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2498-2408	486	ND	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2498-2408	50.5	ND	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2498-2408	41.5	ND	ug/Kg	U
106-47-8	4-Chloroaniline	C2498-2408	42.4	ND	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2498-2408	43.3	ND	ug/Kg	U
100-01-6	4-Nitroaniline	C2498-2408	109	ND	ug/Kg	U
100-02-7	4-Nitrophenol	C2498-2408	742	ND	ug/Kg	U
83-32-9	Acenaphthene	C2498-2408	46.8	ND	ug/Kg	U
208-96-8	Acenaphthylene	C2498-2408	38.3	ND	ug/Kg	U
62-53-3	Aniline	C2498-2408	34.6	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-3

Client Sample ID: SB-8 (15-17.5')

Matrix: Soil

Type: Grab

Collected: 8/24/2010 09:30

% Solid: 89.9%

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-12-7	Anthracene	C2498-2408	49.5	ND	ug/Kg	U
92-87-5	Benzidine	C2498-2408	977	ND	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2498-2408	47.1	ND	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2498-2408	58.0	ND	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2498-2408	46.2	ND	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2498-2408	85.0	ND	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2498-2408	84.6	ND	ug/Kg	U
65-85-0	Benzoic acid	C2498-2408	6520	ND	ug/Kg	U
100-51-6	Benzyl alcohol	C2498-2408	65.6	ND	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2498-2408	46.1	ND	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2498-2408	52.6	ND	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2498-2408	40.8	ND	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2498-2408	72.9	ND	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2498-2408	58.7	ND	ug/Kg	U
86-74-8	Carbazole	C2498-2408	64.1	ND	ug/Kg	U
218-01-9	Chrysene	C2498-2408	58.8	ND	ug/Kg	U
	Cresols	C2498-2408	74.2	ND	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2498-2408	62.6	ND	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2498-2408	54.7	ND	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2498-2408	62.1	ND	ug/Kg	U
132-64-9	Dibenzofuran	C2498-2408	37.2	ND	ug/Kg	U
84-66-2	Diethyl phthalate	C2498-2408	72.7	ND	ug/Kg	U
131-11-3	Dimethyl phthalate	C2498-2408	53.7	ND	ug/Kg	U
206-44-0	Fluoranthene	C2498-2408	61.3	ND	ug/Kg	U
86-73-7	Fluorene	C2498-2408	44.7	ND	ug/Kg	U
118-74-1	Hexachlorobenzene	C2498-2408	47.6	ND	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2498-2408	44.5	ND	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2498-2408	344	ND	ug/Kg	U
67-72-1	Hexachloroethane	C2498-2408	49.5	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2498-2408	51.4	ND	ug/Kg	U
78-59-1	Isophorone	C2498-2408	50.8	ND	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2498-2408	33.6	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-3

Client Sample ID: SB-8 (15-17.5')

Matrix: Soil

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Type: Grab

Collected: 8/24/2010 09:30

% Solid: 89.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
62-75-9	N-Nitrosodimethylamine	C2498-2408	70.6	ND	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2498-2408	60.6	ND	ug/Kg	U
91-20-3	Naphthalene	C2498-2408	44.7	ND	ug/Kg	U
98-95-3	Nitrobenzene	C2498-2408	43.0	ND	ug/Kg	U
87-86-5	Pentachlorophenol	C2498-2408	422	ND	ug/Kg	U
85-01-8	Phenanthrene	C2498-2408	50.6	ND	ug/Kg	U
108-95-2	Phenol	C2498-2408	29.0	ND	ug/Kg	U
129-00-0	Pyrene	C2498-2408	41.2	ND	ug/Kg	U
110-86-1	Pyridine	C2498-2408	63.7	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2498-2408	73.1 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2498-2408	68.3 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2498-2408	62.5 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2498-2408	62.0 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2498-2408	63.2 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2498-2408	89.6 %	(18 - 137)	



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8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-5

Client Sample ID: SB-9 (7.5-10')

Matrix: Soil

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Type: Grab

Collected: 8/24/2010 10:55

% Solid: 78.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2498-2407	52.7	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2498-2407	39.2	ND	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2498-2407	38.3	ND	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2498-2407	42.6	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2498-2407	41.3	ND	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2498-2407	50.2	ND	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2498-2407	27.5	ND	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2498-2407	47.7	ND	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2498-2407	41.6	ND	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2498-2407	53.0	ND	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2498-2407	446	ND	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2498-2407	76.0	ND	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2498-2407	52.2	ND	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2498-2407	61.1	ND	ug/Kg	U
95-57-8	2-Chlorophenol	C2498-2407	61.1	ND	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2498-2407	50.3	ND	ug/Kg	U
95-48-7	2-Methylphenol	C2498-2407	45.4	ND	ug/Kg	U
88-74-4	2-Nitroaniline	C2498-2407	66.0	ND	ug/Kg	U
88-75-5	2-Nitrophenol	C2498-2407	38.5	ND	ug/Kg	U
106-44-5	3+4-Methylphenol	C2498-2407	39.2	ND	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2498-2407	61.1	ND	ug/Kg	U
99-09-2	3-Nitroaniline	C2498-2407	21.8	ND	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2498-2407	554	ND	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2498-2407	57.5	ND	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2498-2407	47.3	ND	ug/Kg	U
106-47-8	4-Chloroaniline	C2498-2407	48.3	ND	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2498-2407	49.3	ND	ug/Kg	U
100-01-6	4-Nitroaniline	C2498-2407	124	ND	ug/Kg	U
100-02-7	4-Nitrophenol	C2498-2407	845	ND	ug/Kg	U
83-32-9	Acenaphthene	C2498-2407	53.4	ND	ug/Kg	U
208-96-8	Acenaphthylene	C2498-2407	43.6	ND	ug/Kg	U
62-53-3	Aniline	C2498-2407	39.4	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-5

Client Sample ID: SB-9 (7.5-10')

Matrix: Soil

Type: Grab

Collected: 8/24/2010 10:55

% Solid: 78.9%

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-12-7	Anthracene	C2498-2407	56.4	ND	ug/Kg	U
92-87-5	Benzidine	C2498-2407	1110	ND	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2498-2407	53.6	ND	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2498-2407	66.0	ND	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2498-2407	52.6	ND	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2498-2407	96.8	ND	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2498-2407	96.5	ND	ug/Kg	U
65-85-0	Benzoic acid	C2498-2407	7430	ND	ug/Kg	U
100-51-6	Benzyl alcohol	C2498-2407	74.8	ND	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2498-2407	52.5	ND	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2498-2407	59.9	ND	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2498-2407	46.5	ND	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2498-2407	83.0	ND	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2498-2407	66.9	ND	ug/Kg	U
86-74-8	Carbazole	C2498-2407	73.0	ND	ug/Kg	U
218-01-9	Chrysene	C2498-2407	67.0	ND	ug/Kg	U
	Cresols	C2498-2407	84.6	ND	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2498-2407	71.4	ND	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2498-2407	62.4	ND	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2498-2407	70.7	ND	ug/Kg	U
132-64-9	Dibenzofuran	C2498-2407	42.3	ND	ug/Kg	U
84-66-2	Diethyl phthalate	C2498-2407	82.9	ND	ug/Kg	U
131-11-3	Dimethyl phthalate	C2498-2407	61.2	ND	ug/Kg	U
206-44-0	Fluoranthene	C2498-2407	69.8	ND	ug/Kg	U
86-73-7	Fluorene	C2498-2407	51.0	ND	ug/Kg	U
118-74-1	Hexachlorobenzene	C2498-2407	54.2	ND	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2498-2407	50.7	ND	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2498-2407	392	ND	ug/Kg	U
67-72-1	Hexachloroethane	C2498-2407	56.4	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2498-2407	58.6	ND	ug/Kg	U
78-59-1	Isophorone	C2498-2407	57.9	ND	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2498-2407	38.3	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

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Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-5

Client Sample ID: SB-9 (7.5-10')

Matrix: Soil

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Type: Grab

Collected: 8/24/2010 10:55

% Solid: 78.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
62-75-9	N-Nitrosodimethylamine	C2498-2407	80.5	ND	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2498-2407	69.1	ND	ug/Kg	U
91-20-3	Naphthalene	C2498-2407	51.0	ND	ug/Kg	U
98-95-3	Nitrobenzene	C2498-2407	49.0	ND	ug/Kg	U
87-86-5	Pentachlorophenol	C2498-2407	480	ND	ug/Kg	U
85-01-8	Phenanthrene	C2498-2407	57.7	ND	ug/Kg	U
108-95-2	Phenol	C2498-2407	33.1	ND	ug/Kg	U
129-00-0	Pyrene	C2498-2407	46.9	ND	ug/Kg	U
110-86-1	Pyridine	C2498-2407	72.6	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2498-2407	90.6 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2498-2407	83.9 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2498-2407	80.7 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2498-2407	77.9 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2498-2407	79.9 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2498-2407	103.0 %	(18 - 137)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-6

Client Sample ID: SB-10 (17.5-20')

Matrix: Soil

Type: Grab

Collected: 8/24/2010 11:45

% Solid: 87%

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2498-2406	47.8	ND	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2498-2406	35.5	ND	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2498-2406	34.7	ND	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2498-2406	38.6	ND	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2498-2406	37.5	ND	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2498-2406	45.5	ND	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2498-2406	24.9	ND	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2498-2406	43.2	ND	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2498-2406	37.7	ND	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2498-2406	48.0	ND	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2498-2406	405	ND	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2498-2406	69.0	ND	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2498-2406	47.4	ND	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2498-2406	55.4	ND	ug/Kg	U
95-57-8	2-Chlorophenol	C2498-2406	55.4	ND	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2498-2406	45.6	ND	ug/Kg	U
95-48-7	2-Methylphenol	C2498-2406	41.1	ND	ug/Kg	U
88-74-4	2-Nitroaniline	C2498-2406	59.9	ND	ug/Kg	U
88-75-5	2-Nitrophenol	C2498-2406	34.9	ND	ug/Kg	U
106-44-5	3+4-Methylphenol	C2498-2406	35.5	ND	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2498-2406	55.4	ND	ug/Kg	U
99-09-2	3-Nitroaniline	C2498-2406	19.8	ND	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2498-2406	502	ND	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2498-2406	52.2	ND	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2498-2406	42.9	ND	ug/Kg	U
106-47-8	4-Chloroaniline	C2498-2406	43.8	ND	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2498-2406	44.7	ND	ug/Kg	U
100-01-6	4-Nitroaniline	C2498-2406	112	ND	ug/Kg	U
100-02-7	4-Nitrophenol	C2498-2406	767	ND	ug/Kg	U
83-32-9	Acenaphthene	C2498-2406	48.4	ND	ug/Kg	U
208-96-8	Acenaphthylene	C2498-2406	39.5	ND	ug/Kg	U
62-53-3	Aniline	C2498-2406	35.7	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-6

Client Sample ID: SB-10 (17.5-20')

Matrix: Soil

Type: Grab

Collected: 8/24/2010 11:45

% Solid: 87%

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
120-12-7	Anthracene	C2498-2406	51.1	ND	ug/Kg	U
92-87-5	Benzidine	C2498-2406	1010	ND	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2498-2406	48.6	ND	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2498-2406	59.9	ND	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2498-2406	47.7	ND	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2498-2406	87.8	ND	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2498-2406	87.5	ND	ug/Kg	U
65-85-0	Benzoic acid	C2498-2406	6740	ND	ug/Kg	U
100-51-6	Benzyl alcohol	C2498-2406	67.8	ND	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2498-2406	47.6	ND	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2498-2406	54.4	ND	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2498-2406	42.2	ND	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2498-2406	75.3	ND	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2498-2406	60.7	ND	ug/Kg	U
86-74-8	Carbazole	C2498-2406	66.2	ND	ug/Kg	U
218-01-9	Chrysene	C2498-2406	60.8	ND	ug/Kg	U
	Cresols	C2498-2406	76.6	ND	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2498-2406	64.7	ND	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2498-2406	56.6	ND	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2498-2406	64.1	ND	ug/Kg	U
132-64-9	Dibenzofuran	C2498-2406	38.4	ND	ug/Kg	U
84-66-2	Diethyl phthalate	C2498-2406	75.2	ND	ug/Kg	U
131-11-3	Dimethyl phthalate	C2498-2406	55.5	ND	ug/Kg	U
206-44-0	Fluoranthene	C2498-2406	63.3	ND	ug/Kg	U
86-73-7	Fluorene	C2498-2406	46.2	ND	ug/Kg	U
118-74-1	Hexachlorobenzene	C2498-2406	49.2	ND	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2498-2406	46.0	ND	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2498-2406	355	ND	ug/Kg	U
67-72-1	Hexachloroethane	C2498-2406	51.1	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2498-2406	53.1	ND	ug/Kg	U
78-59-1	Isophorone	C2498-2406	52.5	ND	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2498-2406	34.7	ND	ug/Kg	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-6

Client Sample ID: SB-10 (17.5-20')

Matrix: Soil

Type: Grab

Collected: 8/24/2010 11:45

% Solid: 87%

Remarks:

Analyzed Date: 8/26/2010

Preparation Date(s) : 8/25/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
62-75-9	N-Nitrosodimethylamine	C2498-2406	73.0	ND	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2498-2406	62.6	ND	ug/Kg	U
91-20-3	Naphthalene	C2498-2406	46.2	ND	ug/Kg	U
98-95-3	Nitrobenzene	C2498-2406	44.5	ND	ug/Kg	U
87-86-5	Pentachlorophenol	C2498-2406	436	ND	ug/Kg	U
85-01-8	Phenanthrene	C2498-2406	52.3	ND	ug/Kg	U
108-95-2	Phenol	C2498-2406	30.0	ND	ug/Kg	U
129-00-0	Pyrene	C2498-2406	42.5	ND	ug/Kg	U
110-86-1	Pyridine	C2498-2406	65.9	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2498-2406	87.4 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2498-2406	68.7 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2498-2406	64.1 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2498-2406	62.3 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2498-2406	64.2 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2498-2406	95.5 %	(18 - 137)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-8

Client Sample ID: SB-8 (GW)

Collected: 8/24/2010 09:45

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/30/2010

Preparation Date(s) : 8/27/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2499-2413	0.92	ND	ug/L	U
95-50-1	1,2-Dichlorobenzene	C2499-2413	0.71	ND	ug/L	U
122-66-7	1,2-Diphenylhydrazine	C2499-2413	0.87	ND	ug/L	U
541-73-1	1,3-Dichlorobenzene	C2499-2413	0.82	ND	ug/L	U
106-46-7	1,4-Dichlorobenzene	C2499-2413	0.74	ND	ug/L	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2499-2413	1.07	ND	ug/L	U
95-95-4	2,4,5-Trichlorophenol	C2499-2413	0.59	ND	ug/L	U
88-06-2	2,4,6-Trichlorophenol	C2499-2413	0.75	ND	ug/L	U
120-83-2	2,4-Dichlorophenol	C2499-2413	0.98	ND	ug/L	U
105-67-9	2,4-Dimethylphenol	C2499-2413	1.03	ND	ug/L	U
51-28-5	2,4-Dinitrophenol	C2499-2413	4.51	ND	ug/L	U
121-14-2	2,4-Dinitrotoluene	C2499-2413	0.62	ND	ug/L	U
606-20-2	2,6-Dinitrotoluene	C2499-2413	0.98	ND	ug/L	U
91-58-7	2-Chloronaphthalene	C2499-2413	0.92	ND	ug/L	U
95-57-8	2-Chlorophenol	C2499-2413	0.63	ND	ug/L	U
91-57-6	2-Methylnaphthalene	C2499-2413	0.82	1.11	ug/L	J
95-48-7	2-Methylphenol	C2499-2413	0.50	ND	ug/L	U
88-74-4	2-Nitroaniline	C2499-2413	0.77	ND	ug/L	U
88-75-5	2-Nitrophenol	C2499-2413	1.03	ND	ug/L	U
106-44-5	3+4-Methylphenol	C2499-2413	0.17	ND	ug/L	U
91-94-1	3,3'-Dichlorobenzidine	C2499-2413	0.68	ND	ug/L	U
99-09-2	3-Nitroaniline	C2499-2413	0.60	ND	ug/L	U
534-52-1	4,6-Dinitro-2-methylphenol	C2499-2413	0.82	ND	ug/L	U
101-55-3	4-Bromophenyl phenyl ether	C2499-2413	0.85	ND	ug/L	U
59-50-7	4-Chloro-3-methylphenol	C2499-2413	0.53	ND	ug/L	U
106-47-8	4-Chloroaniline	C2499-2413	0.47	ND	ug/L	U
7005-72-3	4-Chlorophenyl phenyl ether	C2499-2413	0.92	ND	ug/L	U
100-01-6	4-Nitroaniline	C2499-2413	1.07	ND	ug/L	U
100-02-7	4-Nitrophenol	C2499-2413	2.04	ND	ug/L	U
83-32-9	Acenaphthene	C2499-2413	1.02	ND	ug/L	U
208-96-8	Acenaphthylene	C2499-2413	0.93	ND	ug/L	U
62-53-3	Aniline	C2499-2413	0.23	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-8

Client Sample ID: SB-8 (GW)

Collected: 8/24/2010 09:45

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/30/2010

Preparation Date(s) : 8/27/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
120-12-7	Anthracene	C2499-2413	0.84	ND	ug/L	U
92-87-5	Benzidine	C2499-2413	28.5	ND	ug/L	U
56-55-3	Benzo(a)anthracene	C2499-2413	1.03	ND	ug/L	U
50-32-8	Benzo(a)pyrene	C2499-2413	0.91	ND	ug/L	U
205-99-2	Benzo(b)fluoranthene	C2499-2413	0.92	ND	ug/L	U
191-24-2	Benzo(g,h,i)perylene	C2499-2413	1.05	ND	ug/L	U
207-08-9	Benzo(k)fluoranthene	C2499-2413	1.04	ND	ug/L	U
65-85-0	Benzoic acid	C2499-2413	10.3	ND	ug/L	U
100-51-6	Benzyl alcohol	C2499-2413	0.48	ND	ug/L	U
111-91-1	bis(2-Chloroethoxy)methane	C2499-2413	0.95	ND	ug/L	U
111-44-4	bis(2-Chloroethyl)ether	C2499-2413	0.57	ND	ug/L	U
108-60-1	bis(2-Chloroisopropyl)ether	C2499-2413	0.77	ND	ug/L	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2499-2413	1.44	3.28	ug/L	BJ
85-68-7	Butyl benzyl phthalate	C2499-2413	1.33	ND	ug/L	U
86-74-8	Carbazole	C2499-2413	1.08	ND	ug/L	U
218-01-9	Chrysene	C2499-2413	0.95	ND	ug/L	U
	Cresols	C2499-2413	0.67	ND	ug/L	U
84-74-2	Di-n-butyl phthalate	C2499-2413	0.97	ND	ug/L	U
117-84-0	Di-n-octyl phthalate	C2499-2413	1.11	ND	ug/L	U
53-70-3	Dibenz(a,h)anthracene	C2499-2413	0.87	ND	ug/L	U
132-64-9	Dibenzofuran	C2499-2413	0.80	ND	ug/L	U
84-66-2	Diethyl phthalate	C2499-2413	1.07	ND	ug/L	U
131-11-3	Dimethyl phthalate	C2499-2413	1.02	ND	ug/L	U
206-44-0	Fluoranthene	C2499-2413	0.86	ND	ug/L	U
86-73-7	Fluorene	C2499-2413	0.91	ND	ug/L	U
118-74-1	Hexachlorobenzene	C2499-2413	0.73	ND	ug/L	U
87-68-3	Hexachlorobutadiene	C2499-2413	1.05	ND	ug/L	U
77-47-4	Hexachlorocyclopentadiene	C2499-2413	0.38	ND	ug/L	U
67-72-1	Hexachloroethane	C2499-2413	0.99	ND	ug/L	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2499-2413	0.95	ND	ug/L	U
78-59-1	Isophorone	C2499-2413	0.70	ND	ug/L	U
621-64-7	N-Nitrosodi-n-propylamine	C2499-2413	0.74	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-8

Client Sample ID: SB-8 (GW)

Collected: 8/24/2010 09:45

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/30/2010

Preparation Date(s) : 8/27/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
62-75-9	N-Nitrosodimethylamine	C2499-2413	0.73	ND	ug/L	U
86-30-6	N-Nitrosodiphenylamine	C2499-2413	1.10	ND	ug/L	U
91-20-3	Naphthalene	C2499-2413	0.87	2.68	ug/L	J
98-95-3	Nitrobenzene	C2499-2413	0.91	ND	ug/L	U
87-86-5	Pentachlorophenol	C2499-2413	0.81	ND	ug/L	U
85-01-8	Phenanthrene	C2499-2413	0.90	0.92	ug/L	J
108-95-2	Phenol	C2499-2413	0.25	1.78	ug/L	BJ
129-00-0	Pyrene	C2499-2413	1.01	ND	ug/L	U
110-86-1	Pyridine	C2499-2413	0.37	ND	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2499-2413	110.0 %	(10 - 123)	
321-60-8	2-FLUOROBIPHENYL	C2499-2413	93.1 %	(43 - 116)	
367-12-4	2-FLUOROPHENOL	C2499-2413	38.7 %	(21 - 110)	
4165-60-0	NITROBENZENE-D5	C2499-2413	86.3 %	(35 - 114)	
13127-88-3	PHENOL-D6	C2499-2413	24.5 %	(10 - 110)	
1718-51-0	TERPHENYL-D14	C2499-2413	104.0 %	(33 - 141)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-9

Client Sample ID: SB-10 (GW)

Collected: 8/24/2010 11:50

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/30/2010

Preparation Date(s) : 8/27/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2499-2414	0.92	ND	ug/L	U
95-50-1	1,2-Dichlorobenzene	C2499-2414	0.71	ND	ug/L	U
122-66-7	1,2-Diphenylhydrazine	C2499-2414	0.87	ND	ug/L	U
541-73-1	1,3-Dichlorobenzene	C2499-2414	0.82	ND	ug/L	U
106-46-7	1,4-Dichlorobenzene	C2499-2414	0.74	ND	ug/L	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2499-2414	1.07	ND	ug/L	U
95-95-4	2,4,5-Trichlorophenol	C2499-2414	0.59	ND	ug/L	U
88-06-2	2,4,6-Trichlorophenol	C2499-2414	0.75	ND	ug/L	U
120-83-2	2,4-Dichlorophenol	C2499-2414	0.98	ND	ug/L	U
105-67-9	2,4-Dimethylphenol	C2499-2414	1.03	ND	ug/L	U
51-28-5	2,4-Dinitrophenol	C2499-2414	4.51	ND	ug/L	U
121-14-2	2,4-Dinitrotoluene	C2499-2414	0.62	ND	ug/L	U
606-20-2	2,6-Dinitrotoluene	C2499-2414	0.98	ND	ug/L	U
91-58-7	2-Chloronaphthalene	C2499-2414	0.92	ND	ug/L	U
95-57-8	2-Chlorophenol	C2499-2414	0.63	ND	ug/L	U
91-57-6	2-Methylnaphthalene	C2499-2414	0.82	ND	ug/L	U
95-48-7	2-Methylphenol	C2499-2414	0.50	ND	ug/L	U
88-74-4	2-Nitroaniline	C2499-2414	0.77	ND	ug/L	U
88-75-5	2-Nitrophenol	C2499-2414	1.03	ND	ug/L	U
106-44-5	3+4-Methylphenol	C2499-2414	0.17	ND	ug/L	U
91-94-1	3,3'-Dichlorobenzidine	C2499-2414	0.68	ND	ug/L	U
99-09-2	3-Nitroaniline	C2499-2414	0.60	ND	ug/L	U
534-52-1	4,6-Dinitro-2-methylphenol	C2499-2414	0.82	ND	ug/L	U
101-55-3	4-Bromophenyl phenyl ether	C2499-2414	0.85	ND	ug/L	U
59-50-7	4-Chloro-3-methylphenol	C2499-2414	0.53	ND	ug/L	U
106-47-8	4-Chloroaniline	C2499-2414	0.47	ND	ug/L	U
7005-72-3	4-Chlorophenyl phenyl ether	C2499-2414	0.92	ND	ug/L	U
100-01-6	4-Nitroaniline	C2499-2414	1.07	ND	ug/L	U
100-02-7	4-Nitrophenol	C2499-2414	2.04	ND	ug/L	U
83-32-9	Acenaphthene	C2499-2414	1.02	ND	ug/L	U
208-96-8	Acenaphthylene	C2499-2414	0.93	ND	ug/L	U
62-53-3	Aniline	C2499-2414	0.23	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-9

Client Sample ID: SB-10 (GW)

Collected: 8/24/2010 11:50

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/30/2010

Preparation Date(s) : 8/27/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
120-12-7	Anthracene	C2499-2414	0.84	ND	ug/L	U
92-87-5	Benzidine	C2499-2414	28.5	ND	ug/L	U
56-55-3	Benzo(a)anthracene	C2499-2414	1.03	ND	ug/L	U
50-32-8	Benzo(a)pyrene	C2499-2414	0.91	ND	ug/L	U
205-99-2	Benzo(b)fluoranthene	C2499-2414	0.92	ND	ug/L	U
191-24-2	Benzo(g,h,i)perylene	C2499-2414	1.05	ND	ug/L	U
207-08-9	Benzo(k)fluoranthene	C2499-2414	1.04	ND	ug/L	U
65-85-0	Benzoic acid	C2499-2414	10.3	ND	ug/L	U
100-51-6	Benzyl alcohol	C2499-2414	0.48	ND	ug/L	U
111-91-1	bis(2-Chloroethoxy)methane	C2499-2414	0.95	ND	ug/L	U
111-44-4	bis(2-Chloroethyl)ether	C2499-2414	0.57	ND	ug/L	U
108-60-1	bis(2-Chloroisopropyl)ether	C2499-2414	0.77	ND	ug/L	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2499-2414	1.44	2.14	ug/L	BJ
85-68-7	Butyl benzyl phthalate	C2499-2414	1.33	ND	ug/L	U
86-74-8	Carbazole	C2499-2414	1.08	ND	ug/L	U
218-01-9	Chrysene	C2499-2414	0.95	ND	ug/L	U
	Cresols	C2499-2414	0.67	ND	ug/L	U
84-74-2	Di-n-butyl phthalate	C2499-2414	0.97	ND	ug/L	U
117-84-0	Di-n-octyl phthalate	C2499-2414	1.11	ND	ug/L	U
53-70-3	Dibenz(a,h)anthracene	C2499-2414	0.87	ND	ug/L	U
132-64-9	Dibenzofuran	C2499-2414	0.80	ND	ug/L	U
84-66-2	Diethyl phthalate	C2499-2414	1.07	ND	ug/L	U
131-11-3	Dimethyl phthalate	C2499-2414	1.02	ND	ug/L	U
206-44-0	Fluoranthene	C2499-2414	0.86	ND	ug/L	U
86-73-7	Fluorene	C2499-2414	0.91	ND	ug/L	U
118-74-1	Hexachlorobenzene	C2499-2414	0.73	ND	ug/L	U
87-68-3	Hexachlorobutadiene	C2499-2414	1.05	ND	ug/L	U
77-47-4	Hexachlorocyclopentadiene	C2499-2414	0.38	ND	ug/L	U
67-72-1	Hexachloroethane	C2499-2414	0.99	ND	ug/L	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2499-2414	0.95	ND	ug/L	U
78-59-1	Isophorone	C2499-2414	0.70	ND	ug/L	U
621-64-7	N-Nitrosodi-n-propylamine	C2499-2414	0.74	ND	ug/L	U



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Semivolatile Compounds - EPA 8270C

Sample: 1008317-9

Client Sample ID: SB-10 (GW)

Collected: 8/24/2010 11:50

Matrix: Liquid

Type: Grab

Remarks: See Case Narrative

Analyzed Date: 8/30/2010

Preparation Date(s) : 8/27/2010

Analytical Results

Cas No	Analyte	File ID	MDL	Result	Units	Q
62-75-9	N-Nitrosodimethylamine	C2499-2414	0.73	ND	ug/L	U
86-30-6	N-Nitrosodiphenylamine	C2499-2414	1.10	ND	ug/L	U
91-20-3	Naphthalene	C2499-2414	0.87	ND	ug/L	U
98-95-3	Nitrobenzene	C2499-2414	0.91	ND	ug/L	U
87-86-5	Pentachlorophenol	C2499-2414	0.81	ND	ug/L	U
85-01-8	Phenanthrene	C2499-2414	0.90	ND	ug/L	U
108-95-2	Phenol	C2499-2414	0.25	1.20	ug/L	BJ
129-00-0	Pyrene	C2499-2414	1.01	ND	ug/L	U
110-86-1	Pyridine	C2499-2414	0.37	ND	ug/L	U

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2499-2414	97.7 %	(10 - 123)	
321-60-8	2-FLUOROBIPHENYL	C2499-2414	75.3 %	(43 - 116)	
367-12-4	2-FLUOROPHENOL	C2499-2414	38.8 %	(21 - 110)	
4165-60-0	NITROBENZENE-D5	C2499-2414	71.5 %	(35 - 114)	
13127-88-3	PHENOL-D6	C2499-2414	25.7 %	(10 - 110)	
1718-51-0	TERPHENYL-D14	C2499-2414	95.2 %	(33 - 141)	



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Modified 8100/Petroleum Products

Sample: 1008317-7

Client Sample ID: SB-7 (GW)

Collected: 8/24/2010 08:00

Matrix: Oil

Type: Grab

Remarks:

Analyzed Date: 8/30/2010

Preparation Date(s) : 8/26/2010

Analytical Results

Cas No	Analyte	File ID	PQL	Result	Units	Q
	#2 Fuel Oil/Diesel	C1290-3	2000	ND	mg/Kg	U
	#4 Fuel Oil	C1290-3	2000	ND	mg/Kg	U
	#6 Fuel Oil	C1290-3	2000	ND	mg/Kg	U
	Gasoline	C1290-3	2000	ND	mg/Kg	U
	Kerosene/Jet Fuel	C1290-3	2000	80000	mg/Kg	
	Lubricating Oils	C1290-3	2000	234000	mg/Kg	
	THC By Mod 8100	C1290-3	803	314000	mg/Kg	

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
460-00-4	4-BROMOFLUOROBENZENE	C1290-3	.0 %	(30 - 150)	*



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Case Narrative

EPA 8270 Semivolatiles

The Initial Calibration meets method 8270 criteria.

All analytes are quantified using the average response factor.

The %RSD is greater than 15% for some analytes, however the average of all %RSDs is less than 15%.

Listed below is the initial calibration summary including individual RSDs for all analytes.

Response Factor Report GC/MS Ins

Method : U:\METHODS\C\C_8270A.M (RTE Integrator)

Title : C_8270A

Last Update : Mon Aug 23 13:36:07 2010

Response via : Initial Calibration

Calibration Files

80 =C2319.D 40 =C2320.D 20 =C2321.D
10 =C2318.D 5 =C2317.D

Compound	80	40	20	10	5	Avg	%RSD
1) I 1,4-Dichlorobenzene-d -----ISTD-----							
2) T N-Nitrosodimethylamin	0.537	0.541	0.536	0.525	0.490	0.526	3.96
3) T Pyridine	1.301	1.289	1.274	1.226	1.145	1.247	5.10
4) S 2-Fluorophenol (surr	1.231	1.218	1.213	1.159	1.101	1.184	4.58
5) S Phenol-d6 (surr)	1.466	1.461	1.490	1.447	1.411	1.455	2.00
6) CMT Phenol	1.466	1.464	1.490	1.443	1.428	1.458	1.63
7) T Aniline	0.681	0.687	0.658	0.637	0.597	0.652	5.58
8) T bis(2-Chloroethyl)eth	0.853	0.881	0.892	0.890	0.886	0.880	1.82
9) MT 2-Chlorophenol	1.318	1.285	1.255	1.199	1.171	1.246	4.85
10) T 1,3-Dichlorobenzene	1.564	1.533	1.516	1.434	1.403	1.490	4.59
11) CMT 1,4-Dichlorobenzene	1.545	1.502	1.532	1.516	1.494	1.518	1.37
12) T Benzyl alcohol	0.805	0.769	0.750	0.700	0.635	0.732	9.00
13) T 1,2-Dichlorobenzene	1.467	1.458	1.442	1.382	1.384	1.427	2.85
14) T 2-Methylphenol	1.140	1.134	1.155	1.076	1.079	1.117	3.29
15) T bis(2-Chloroisopropyl	1.219	1.273	1.320	1.338	1.369	1.304	4.51
16) T 4-Methylphenol	1.238	1.189	1.176	1.073	1.054	1.146	6.90
17) PMT N-Nitrosodi-n-propyla	0.658	0.646	0.644	0.632	0.614	0.639	2.61
18) T Hexachloroethane	0.629	0.618	0.616	0.589	0.575	0.605	3.70
19) I Naphthalene-d8 (IS) -----ISTD-----							
20) S Nitrobenzene-d5 (sur	0.332	0.336	0.340	0.331	0.336	0.335	1.10
21) T Nitrobenzene	0.158	0.153	0.154	0.143	0.137	0.149	5.74
22) T Isophorone	0.555	0.555	0.544	0.509	0.525	0.538	3.72
23) CT 2-Nitrophenol	0.181	0.172	0.170	0.151	0.148	0.164	8.53
24) T 2,4-Dimethylphenol	0.283	0.282	0.283	0.267	0.252	0.274	5.10
25) T Benzoic acid	0.049	0.046	0.024	0.007	0.008	0.027	75.28
26) T 1-(2-Chloroethoxy)me	0.357	0.361	0.358	0.339	0.336	0.350	3.35

- 1008317 -



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Case Narrative

27) CT 2,4-Dichlorophenol 0.276 0.268 0.258 0.241 0.236 0.256 6.68
28) MT 1,2,4-Trichlorobenzen 0.295 0.288 0.288 0.273 0.276 0.284 3.22
29) T Naphthalene 0.934 0.926 0.913 0.872 0.861 0.901 3.65
30) T 4-Chloroaniline 0.370 0.338 0.331 0.293 0.294 0.325 9.93
31) CT Hexachlorobutadiene 0.158 0.156 0.156 0.155 0.151 0.155 1.75
32) CMT 4-Chloro-3-methylphen 0.318 0.301 0.299 0.271 0.262 0.290 7.86
33) T 2-Methylnaphthalene 0.698 0.674 0.653 0.625 0.605 0.651 5.70

34) I Acenaphthene-d10 (IS -----ISTD-----)
35) PT Hexachlorocyclopentad 0.192 0.185 0.169 0.132 0.098 0.155 25.58
36) CT 2,4,6-Trichlorophenol 0.312 0.289 0.272 0.254 0.246 0.274 9.76
37) T 2,4,5-Trichlorophenol 0.337 0.320 0.315 0.293 0.249 0.303 11.31
38) S 2-Fluorobiphenyl (su 1.238 1.223 1.232 1.217 1.145 1.211 3.10
39) T 2-Chloronaphthalene 1.096 1.045 1.008 0.925 0.881 0.991 8.84
40) T 2-Nitroaniline 0.334 0.328 0.312 0.282 0.264 0.304 9.85
41) T Dimethylphthalate 1.304 1.251 1.210 1.121 1.076 1.192 7.81
42) T 2,6-Dinitrotoluene 0.290 0.275 0.258 0.234 0.213 0.254 12.24
43) T Acenaphthylene 1.710 1.647 1.594 1.472 1.422 1.569 7.64
44) T 3-Nitroaniline 0.284 0.266 0.250 0.206 0.224 0.246 12.73
45) CMT Acenaphthene 0.996 0.942 0.880 0.840 0.812 0.894 8.40
46) PT 2,4-Dinitrophenol 0.114 0.111 0.103 0.074 0.059 0.092 26.58
47) PMT 4-Nitrophenol 0.177 0.153 0.127 0.096 0.140 0.139 21.80
48) MT 2,4-Dinitrotoluene 0.374 0.358 0.348 0.309 0.290 0.336 10.44
49) T Dibenzofuran 1.499 1.429 1.379 1.284 1.243 1.367 7.63
50) T 2,3,4,6-Tetrachloroph 0.229 0.209 0.193 0.177 0.172 0.196 11.92
51) T Diethylphthalate 1.364 1.292 1.254 1.168 1.119 1.239 7.87
52) T Fluorene 1.213 1.163 1.105 1.034 0.992 1.101 8.20
53) T 4-Chlorophenyl phenyl 0.559 0.529 0.507 0.481 0.454 0.506 8.02
54) T 4-Nitroaniline 0.246 0.230 0.229 0.185 0.190 0.216 12.50

55) I Phenanthrene-d10 (IS -----ISTD-----)
56) T 4,6-Dinitro-2-methylp 0.132 0.141 0.144 0.126 0.109 0.131 10.86
57) CT N-Nitrosodiphenylamin 0.525 0.526 0.534 0.498 0.481 0.513 4.37
58) T 1,2-Diphenylhydrazine 0.754 0.779 0.795 0.785 0.798 0.782 2.26
59) S 2,4,6-Tribromophenol 0.078 0.078 0.078 0.078 0.076 0.078 1.38
60) T 4-Bromophenyl phenyl 0.175 0.169 0.172 0.164 0.161 0.168 3.43
61) T Hexachlorobenzene 0.174 0.172 0.170 0.164 0.169 0.170 2.33
62) CMT Pentachlorophenol 0.096 0.097 0.093 0.085 0.078 0.090 9.40
63) T Phenanthrene 1.026 0.993 0.947 0.883 0.865 0.942 7.33
64) T Anthracene 1.027 1.000 0.974 0.910 0.887 0.960 6.19
65) T Carbazole 0.760 0.726 0.719 0.710 0.730 0.729 2.59
66) T Di-n-butylphthalate 1.448 1.416 1.404 1.282 1.244 1.359 6.61
67) CT Fluoranthene 1.076 1.046 1.016 0.970 0.936 1.009 5.59

68) I Chrysene-d12 (IS -----ISTD-----)
69) T Benzidine 0.266 0.405 0.474 0.419 0.411 0.395 19.53
70) MT Pyrene 1.357 1.317 1.269 1.135 1.146 1.245 8.07
71) S Terphenyl-d14 (surr) 0.763 0.762 0.765 0.742 0.732 0.753 2.00
72) T Butylbenzylphthalate 0.811 0.784 0.745 0.664 0.659 0.733 9.45
Dichlorobenzidin 0.245 0.206 0.221 0.262 0.311 0.249 16.36

- 1008317 -



Environmental Testing Laboratories, Inc.

208 Route 109, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

8/31/2010

Case Narrative

74) T bis(2-Ethylhexyl)phth 1.206 1.160 1.070 0.955 0.946 1.067 11.01
75) T Benzo(a)anthracene 1.119 1.100 1.064 1.009 0.996 1.057 5.13
76) T Chrysene 1.048 1.010 0.968 0.901 0.907 0.967 6.60

77) I Perylene-d12 (IS) -----ISTD-----
78) CT Di-n-octylphthalate 2.280 2.104 2.008 1.774 1.679 1.969 12.41
79) T Benzo(b)fluoranthene 1.306 1.229 1.164 1.056 1.029 1.157 10.06
80) T Benzo(k)fluoranthene 1.068 1.034 1.059 1.021 1.029 1.042 1.94
81) CT Benzo(a)pyrene 1.166 1.131 1.102 1.036 0.985 1.084 6.74
82) T Indeno(1,2,3-cd)pyren 1.314 1.238 1.164 1.085 0.961 1.153 11.89
83) T Dibenz(a,h)anthracene 1.129 1.057 1.002 0.814 0.904 0.981 12.66
84) T Benzo(g,h,i)perylene 1.088 0.990 0.949 0.841 0.895 0.952 9.88

(#) = Out of Range

C_8270A.M Mon Aug 30 15:51:49 2010



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8/31/2010

Case Narrative

EPA 8270 SEMI-VOLATILE ANALYSIS:

Samples 8,9:

Bis(2-ethylhexyl)phthalate, which was found in the blank associated with these samples at 2.46ppb, is a common laboratory contaminant.

Phenol was detected in the blank associated with these samples at 1.3ppb.



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8/31/2010

Case Narrative

8100pet

Sample is an oil matrix that contains a mixture of petroleum products, the main products looks to be Ultra-Diesel which is similar to jet fuel and lub oil. Results were reported as jet fuel and lub oil.



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8/31/2010

ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

- U - The analytical result is not detected above the Method Detection Limit (MDL).
All MDL's are lower than the lowest calibration standard concentration.
- J - Indicates an estimated value. The concentration reported was between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
- B - The analyte was found in the associated method blank as well as the sample.
It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- E - The concentration of the analyte exceeded the calibration range of the instrument.
- D - This flag indicates a system monitoring compound diluted out.

INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

- B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Method Detection Limit (MDL).
- U - Entered when the analyte was analyzed for, but not detected above the Method Detection Limit (MDL) which is less than the lowest calibration standard concentration.

Q - Qualifier specific entries and their meanings are as follows:

- E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

- AS - Semi-automated Spectrophotometric
- AV - Automated Cold Vapor AA
- C - Manual Spectrophotometric
- P - ICP
- T - Titrimetric

OTHER QUALIFIERS

ND - Not Detected



291 METROPOLITAN AVENUE, LLC.
291 METROPOLITAN AVENUE
BROOKLYN, NEW YORK
NYSDEC SPILL NUMBER 06-07903

REMEDIAL ACTION PLAN

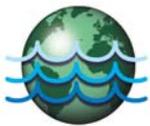
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PWGC Project Number: MAB1002

NOVEMBER 2010

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FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Proposed Monitoring Well / Recovery Well Location Map
Figure 4	Post Injection Sampling Plan
Figure 5	Hospital Route Map

APPENDICIES

Appendix A	NYSDEC e-mail correspondence
Appendix B	Regenesis Documents

1.0 INTRODUCTION

P.W. Grosser Consulting, Inc. (PWGC), on behalf of our client, 291 Metropolitan Avenue, LLC. has prepared the following Remedial Action Plan (RAP) to perform the remediation of subsurface impacts, including free-floating Light Non-Aqueous Phase Liquid (LNAPL) and gasoline impacted soils at the property located at 291 Metropolitan Avenue, Brooklyn, NY. Due to the presence of an open spill on the property as well as floating LNAPL, a remedial action is required by the New York State Department of Environmental Conservation (NYSDEC) to address the open NYSDEC Spill Number 06-07903. The scope of the remedial action is based upon the findings of the investigation performed between July 2010 and August 2010.

The results of the investigation are summarized in the September 22, 2010 Supplemental Phase II Environmental Site Assessment (Report) submitted under separate cover.

1.1 Site Location and Description

The subject site is located at 291 Metropolitan Avenue in Brooklyn, New York. The property is currently owned and occupied by M.I. Mechanical Industries, Inc. Based upon our correspondence with representatives of M.I. Mechanical Industries Inc. and a review of the 2006 Advanced Site Restoration, LLC (ASR) Investigation Summary Report, the property was formerly occupied by a gasoline filling station and an automotive repair facility. Several underground storage tanks (USTs) were identified on the property, consisting of the following:

- a reportedly abandoned 550-gallon fuel oil tank,
- a waste oil tank, and
- at least three reportedly 550-gallon gasoline tanks.

A vicinity map is included as **Figure 1**, and a site plan showing recent sampling locations is included as **Figure 2**.

1.2 Surrounding Land Use

The site is located in Brooklyn, NY. The area surrounding the subject site is a mix of residential and commercial properties.

2.0 SITE HISTORY AND DETAILS

2.1 Site History

To determine if subsurface soil / groundwater contamination existed at the site, in 2006 ASR performed six soil and groundwater borings on the property. Subsurface soil and groundwater contamination was identified on the property when compared to their respective NYSDEC Recommended Soil Clean-up Objectives (RSCOs) as specified in the Technical and Administrative Guidance Memorandum (TAGM) #4046 and Class GA Groundwater Standards as specified in the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1.

Based upon the contamination on the subject property, ASR contacted the NYSDEC and spill # 06-07903 was assigned to the site. Based upon information provided to PWGC, no further investigation / remediation had occurred at the site since the 2006 investigation.

2.2 Supplemental Investigation

In order to assess the current conditions at the site, PWGC performed a subsurface soil and groundwater investigation at the property between July and August 2010. This investigation focused on areas where impacted soil / groundwater was identified by ASR during the 2006 investigation. Results of the investigation indicated that no soil impact was evident in the unsaturated zone above the NYSDEC RSCOs; however, groundwater contamination (primarily Methyl-Tert-Butyl Ether, aka MTBE), as well as floating LNAPL existed at the subject property in the vicinity of the gasoline USTs and waste oil UST respectively. Depth to water at the property was identified between 18 and 20 feet below ground surface.

No impacts were identified which appear to be associated with the reportedly abandoned fuel oil tank.

See **Figure 2** for extents of the impacted area.

For a detailed description of the investigation, refer to the September 22, 2010 Report.

2.3 NYSDEC Requirements

In an e-mail correspondence on September 28, 2010 the NYSDEC indicated that remediation at the subject property was required. A copy of the e-mail correspondence is included in **Appendix A**.

3.0 DESCRIPTION OF REMEDIAL ACTION

As a result of the findings of the subsurface investigations and the September 28, 2010 e-mail correspondence from the NYSDEC, PWGC proposes the following Remedial Actions be implemented at the site including:

- Removal of the reportedly abandoned gasoline USTs and associated piping.
- Removal of the waste oil UST and associated piping.
- Removal of impacted soil, if necessary
- Endpoint sample collection, backfill and site restoration.

- The installation of groundwater monitoring wells to determine local groundwater flow direction and collect future groundwater samples.
- Installation of recovery wells in the area where LNAPL is present.
- Removal of LNAPL through Vacuum-Enhanced Fluid Recovery (VEFR) utilizing a vacuum powered pump truck
- The treatment of dissolved groundwater contamination through chemical oxidation / enhanced bioremediation after the LNAPL has been addressed.
- It has been reported that the fuel oil UST has been abandoned in place due to its location within the building. The status (out of service, properly abandoned, etc.) of the fuel oil tank should be determined.

3.1 Tank Removal – Waste Oil UST and Gasoline USTs

The remedial action for the property will first consist of the removal of the waste oil UST and former gasoline USTs located on the subject property. Since no fuel oil related impacts were identified in the vicinity of the fuel oil UST, this tank will not be removed. The removal procedure for the waste oil UST and former gasoline USTs will be as follows:

- Overburden, consisting of concrete and / or asphalt and soil above the tanks will be removed to expose the top of the tanks;
- Once the tanks are exposed, they will be pumped of standing liquids, where present. Liquids removed from the tanks will be properly disposed of;
- The tanks will then be cut opened and cleaned of residual sludge, if present;
- Once cleaned, the tanks will be removed from the excavation.

The tanks will be inspected to evaluate their condition following removal. Associated piping, if encountered during the tank removal will be removed as well. Following the removal, the tanks and piping will be properly disposed of.

3.2 Endpoint Sample Collection, Excavation Backfill and Site Restoration

At the completion of the tank removal, should impacted soils be identified they will be removed to the extent possible and disposed of in accordance with all local, state and federal regulations. If necessary, impacted soils that extend to the groundwater table, as well as in the vicinity of the building, will be removed utilizing shoring. At the completion of the impacted soil removal, if required, endpoint soil samples will be collected to the extents possible due to the shoring to determine the effectiveness of the removal / remediation. A representative number of endpoint samples will be collected from the sidewalls and base of each excavation. The collected samples will be submitted to a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) certified analytical laboratory for the following analyses:

- Volatile Organic Compounds (VOCs) by EPA Method 8260, and
- Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270

Following the collection of endpoint samples the excavation(s) will be backfilled with clean fill. In accordance with the NYSDEC's Division of Environmental Remediation Technical Guidance for Site Remediation Series #10 (DER-10) Section 5.4, uncontaminated soil from the site, if screened clean during the excavation, may be returned as backfill into the excavation. Additional clean fill, as defined by 6NYCRR Part 360, may be brought in from off-site to backfill the excavation, if needed. This material will be uncontaminated pursuant to any applicable remediation standard and free of extraneous debris or solid waste.

3.3 Monitoring Well Installation, Surveying and Sampling

Regional groundwater flow direction in the vicinity of the subject property is to the north-northwest towards the East River. Additionally, groundwater at the site was found to be approximately 20 feet below ground surface. Since the local groundwater flow direction beneath the subject property is unknown, and the potential for future monitoring exists, at least six permanent monitoring wells will be installed as part of the Remedial Action. The new monitoring wells will be installed at locations identified on **Figure 3** as follows:

The monitoring wells will be constructed of 2-inch diameter, schedule 40 PVC casing and screen with 0.020 inch slot. The wells will be constructed with 15 feet of screen and approximately 15 feet of riser to grade. The screen will be set with 10 feet in and five feet above the water table. A gravel pack of No. 2 Morie sand will be placed in the annulus around the screen zone, up to one foot above the top of the screen. A two foot sand seal will be installed above the gravel pack and a one foot bentonite seal will be installed above the sand seal. Above the bentonite layer, the annulus around the well will be filled with a cement / bentonite grout to grade. The wells will be set flush to grade with a protective locking manhole and the riser fitted with a water tight cap. Upon completion of the monitoring well installation, the monitoring wells will be surveyed to determine their respective elevations with regards to a local datum. The survey will allow the determination of the local groundwater flow direction beneath the subject property.

As per NYSDEC DER-10, at least 48 hours after the installation of the monitoring wells, they will be developed by over-pumping and/or surging to restore the hydraulic properties of the aquifer. Development water will be containerized in 55-gallon drums that will be staged on the property awaiting disposal. Additionally, at least two weeks following the development of the monitoring wells, an initial round of water level measurements and groundwater sampling will be performed. Prior to sampling, using a submersible pump, the wells will be purged using low-flow techniques as per the United States Environmental Protection Agency (EPA). The collected samples will be submitted to a NYSDOH ELAP-certified analytical laboratory for the following analyses:

- VOCs by EPA Method 8260, and
- SVOCs by EPA Method 8270

The purpose of the well sampling will be to determine the groundwater quality prior to the recommended chemical injection. In order to compare to future sampling rounds, field parameters including pH, dissolved oxygen, oxidation reduction potential, temperature, and conductivity will be measured during this sampling round.

3.4 Recovery Well Installation and LNAPL Recovery

Upon determining the local groundwater flow direction, PWGC will determine the proper locations of the proposed recovery wells. In the vicinity of the waste oil UST, where LNAPL was identified, at least two recovery wells will be installed in the source area as well as in the down-gradient direction of the source area.

To allow for a more efficient recovery of the LNAPL, the recovery wells will be constructed of 6-inch diameter, schedule 40 PVC casing and screen with 0.020 inch slot. The wells will be constructed as described above for the monitoring wells.

Upon completing the installation of the recovery wells, PWGC, along with their subcontractor, will perform weekly Vacuum-Enhanced Fluid Recoveries (VEFR) to remove LNAPL from the recovery well until no measurable product is identified. The frequency of visits may decrease from weekly to every two weeks upon determining a significant decrease in the amount of LNAPL recovered during each visit. As part of the VEFR events, measurements of the LNAPL will be performed prior to, during and after pumping has been completed for the event. These measurements will assist in the calculation of product removed and recovery time into the wells. VEFR events will continue until no measurable LNAPL is identified in the recovery wells.

3.5 Chemical Oxidation / Enhanced Bioremediation

In order to treat the residual impact following LNAPL removal, the site will be treated with the following chemical oxidants:

- *Regen-Ox* – This product is a chemical oxidant which chemically breaks down petroleum compounds to their component parts (such as carbon dioxide and water). This product is effective at reducing impacts associated with source areas, however this product has a short effective lifespan of approximately four to six weeks.
- *ORC-Advance* – This product releases oxygen to the groundwater where it enhances biodegradation of the contamination. This compound is longer acting and has a typical lifespan of eight to twelve months.

The injection plan is shown on **Figure 4**. The manufacturer summary documents for these products are included in **Appendix B**.

A Geoprobe™ will be used to facilitate the injection of the above referenced compounds. The Geoprobe™ uses direct-push technology to drive a rod fitted with an expendable tip to the desired injection depth. The rod string is then retracted and the point displaced prior to pumping the proper ratio of the compounds through the rod

string using a pump. Based upon the Regensis work-sheet it is recommended that the injections are performed as follows:

- Area 1 – This location is identified by the rectangular area encompassing the LNAPL area as well as the former gasoline USTs. During the first injection, this area will be treated with 1,200 pounds of RegenOx placed into 12 points along a grid pattern as shown on **Figure 4**. During the second round of injections, this area will receive an additional 900 pounds of RegenOx along with 425 pounds of ORC-A.
- Area 2 – This location is identified by the irregularly shaped area encompassing the SB-3 location. This area will only be treated during the second round of injections and will receive 75 pounds of ORC-A.

These ratios have been pre-determined by Regensis, however; the formation characteristics will dictate the pumping rate and volume pumped. The rods can be retracted incrementally and the pumping procedure repeated until the recommended quantity has been injected into the water table. Injection of the material is performed in two rounds typically two weeks apart in order to allow the compounds to affect the contaminants. The Geoprobe™ method can be performed quickly, so that in the event that refusal occurs, a new location can be accessed with minimal effort.

4.0 MONITORING AND MAINTENANCE

4.1 Post-Excavation Monitoring and Verification

Approximately six weeks following the ORC application, a post-remediation round of groundwater sampling will be performed at the site. Groundwater sampling will consist of the monitoring, gauging, and sampling of the onsite monitoring wells. Depth to water and depth to product measurements will be collected from each of the onsite wells, including the recovery well. Prior to sampling, using a submersible pump, will be purged using low-flow techniques as identified above in **Section 3.3**. The collected samples will be submitted to a NYSDOH ELAP-certified analytical laboratory for the following analyses:

- VOCs by EPA Method 8260, and
- SVOCs by EPA Method 8270

The purpose of this round of sampling will be to determine the groundwater quality / effectiveness of the chemical oxidation at the site. In order to confirm that the oxidation process is occurring as intended in the impacted area, field parameters including pH, dissolved oxygen, oxidation reduction potential, temperature, and conductivity will be measured prior to and during the application, and two weeks following the injection.

Following the injections, PWGC will likely perform quarterly sampling until it is determined that the impact has been sufficiently remediated. At that time, PWGC will petition the NYSDEC for closure of the spill file.

5.0 HEALTH AND SAFETY

This section addresses the minimum health and safety practices that will be employed by site workers participating in remediation activities at the project site. This section also takes into account the specific hazards inherent to the site and presents the minimum requirements which are to be met by on-site personnel in order to avoid and, if necessary, protect against health and/or safety hazards.

Activities will comply with applicable parts of Occupational Safety and Health Administration (OSHA) Regulations, primarily 29 CFR Parts 1910 and 1926 and all other applicable federal, state, and local regulations. This section addresses the potential hazards related to the remediation activities, including site mobilization/demobilization, drilling, tank removal / excavation activities and soil / groundwater sampling.

5.1 Potential Hazards

Potential hazards associated with this scope, including chemical, biological and physical hazards are detailed below.

5.1.1 Chemical Hazards

Review of historical information from the site indicates that the groundwater at the site is contaminated with gasoline related compounds, specifically, gasoline, MTBE and Light Non-Aqueous Phase Liquid. Appropriate measures should be taken to prevent contact with potentially impacted soil/groundwater. Material Safety Data Sheets (MSDS) for potential contaminants of concern are included as **Appendix C**.

5.1.2 Biological Hazards

The site is located in an urban area and the potential exists for workers to come into contact with biological hazards such as animals and insects. Appropriate measures should be taken to prevent contact with potential biological hazards.

5.1.3 Physical Hazards

Potential physical Hazards associated with proposed investigation activities include:

- Temperature extremes (i.e., heat stress/cold stress)
- Noise
- Fire and explosion
- Manual lifting/material handling
- Slips, trips and falls
- Heavy equipment operation (i.e., drill rig, back hoe, etc.)
- Electrocutation

5.2 Personal Protective Equipment

The personal protective equipment (PPE) specified below represents the hazard analysis and PPE selection required by 29 CFR 1910.132. Modifications for initial PPE selection may also be made by the project manager based upon site conditions. Modifications will be documented. Field work will be performed in Level D personal protective equipment (PPE) which consists of the following:

- Work clothes (long sleeves/pants)
- Work gloves/nitrile gloves (as appropriate)
- Boots/shoes, chemical-resistant, steel toe.
- Safety glasses
- Hard hat (while drilling / excavation is in progress)
- Hearing protection (while drilling / excavation is in progress)

The proper use of PPE and strict adherence to decontamination and personal hygiene procedures will effectively minimize skin contact and ingestion as potential routes of exposure.

5.3 General Health and Safety Practices

A list of general health and safety work practices to be followed is included below. On-site personnel should review the list prior to the start of work.

- Eating, drinking, chewing tobacco or gum, smoking and any other practice that may increase the possibility of hand-to-mouth contact is prohibited in the work area. Exceptions may be permitted by the field supervisor to allow fluid intake during heat stress conditions.
- Lighters, matches, cigarettes and other forms of tobacco are prohibited in the work area.
- No person shall operate equipment unless trained and authorized.
- Hand and portable power tools must be inspected prior to use. Defective tools and equipment shall not be used.
- Ground fault interrupters shall be used for cord and plug equipment used outdoors or in damp locations. Electrical cords shall be kept out of walkways and puddles unless protected and rated for the service.
- Improper use, mishandling, or tampering with health and safety equipment and samples is prohibited.
- Horseplay of any kind is prohibited.
- Possession or use of alcoholic beverages, controlled substances, or firearms on any site is forbidden.
- Incidents must be reported immediately to the field supervisor and/or project manager.

The above General Health and Safety Work Practices are not all inclusive and it is the responsibility of on-site personnel to comply with regulations set forth by OSHA and the field supervisor/project manager.

5.3.1 Drilling / Excavation

When conducting drilling or excavation activities, the possibility of encountering fire and explosion hazards exists from underground utilities and gases. The locations of underground utilities will be verified prior to performing any intrusive activities. Additionally, because of the inherently hazardous nature of drilling operations, safety and

accident prevention are crucial when drilling operations are performed. Most drilling accidents occur as a direct result of lack of training and supervision, improper handling of equipment, and unsafe work practices.

- Safety requires the attention and cooperation of every worker and site visitor.
- Maintain a minimum of 15 feet clearance from overhead electric lines.
- Throwing or dropping tools shall not be permitted. Tools shall be carefully passed by hand between personnel or a hoist line shall be used.
- Do not consume alcoholic beverages or other depressants or chemical stimulants prior to drilling or while on the job.

5.4 Emergency Response

Telephone Numbers for emergency response personnel are listed below.

Police	New York City Police Department	911
Fire / Ambulance	Fire Department of New York	911
Medical Center	The Brooklyn Hospital Center: Williamsburg Family Health Center	(718) 599-6200
Hospital	Woodhull Hospital	(718) 963-8000

In the event of an emergency, the field supervisor will contact the appropriate emergency response personnel and the project manager.

The procedures and rules contained within this section are designed to prevent employee injury. However, should an injury occur it will be reported to the field supervisor/project manager immediately.

Unless they are in immediate danger, severely injured persons will not be moved until emergency personnel can attend to them. Some injuries, such as severe cuts and lacerations or burns, may require immediate treatment.

Only in non-emergency situations will an injured person be transported to the hospital by means other than an ambulance. A Hospital Route Map is included as **Figure 5**.

At a minimum, an industrial first aid kit and fire extinguisher (one per work area) shall be kept and maintained on-site during work activities.

5.5 Training

Pursuant to 29 CFR 1910.120, hazardous waste site workers shall, at the time of job assignment, have received a minimum of 40 hours of initial health and safety training for hazardous waste site operations unless otherwise noted in the above reference. At a minimum, the training shall have consisted of instruction in the topics outlined in the standard. Personnel who have not met the requirements for initial training shall not be allowed to work in any site activities in which they may be exposed to hazards (chemical or physical).

In addition to the required initial hazardous waste operations training, each employee shall have received three days of directly supervised on-the-job training. This training will address the duties the employees are expected to perform.

Annual eight-hour refresher training will be required of hazardous waste site field personnel in order to maintain their qualifications for fieldwork. The training will cover a review of 1910.120 requirements and related company programs and procedures.

Project personnel and visitors will be given on-site health and safety briefings daily by the field supervisor to assist site personnel in safely conducting their work activities. Briefings will include information on new operations to be conducted, changes in work practices or changes in the site's environmental conditions, as well as periodic reinforcement of previously discussed topics. Briefings will also provide a forum to facilitate conformance with safety requirements and to identify performance deficiencies related to safety during daily activities or as a result of safety inspections. Meetings will also be an opportunity to periodically update the crews on monitoring results.

6.0 REMEDIAL ACTION REPORT

Upon completion the remedial action and post remedial monitoring, a report will be generated to document the completion of the remedial effort. The report will document the remedial work completed and will include site photographs, waste disposal manifests, maps, and import fill receipts for soil used as appropriate.

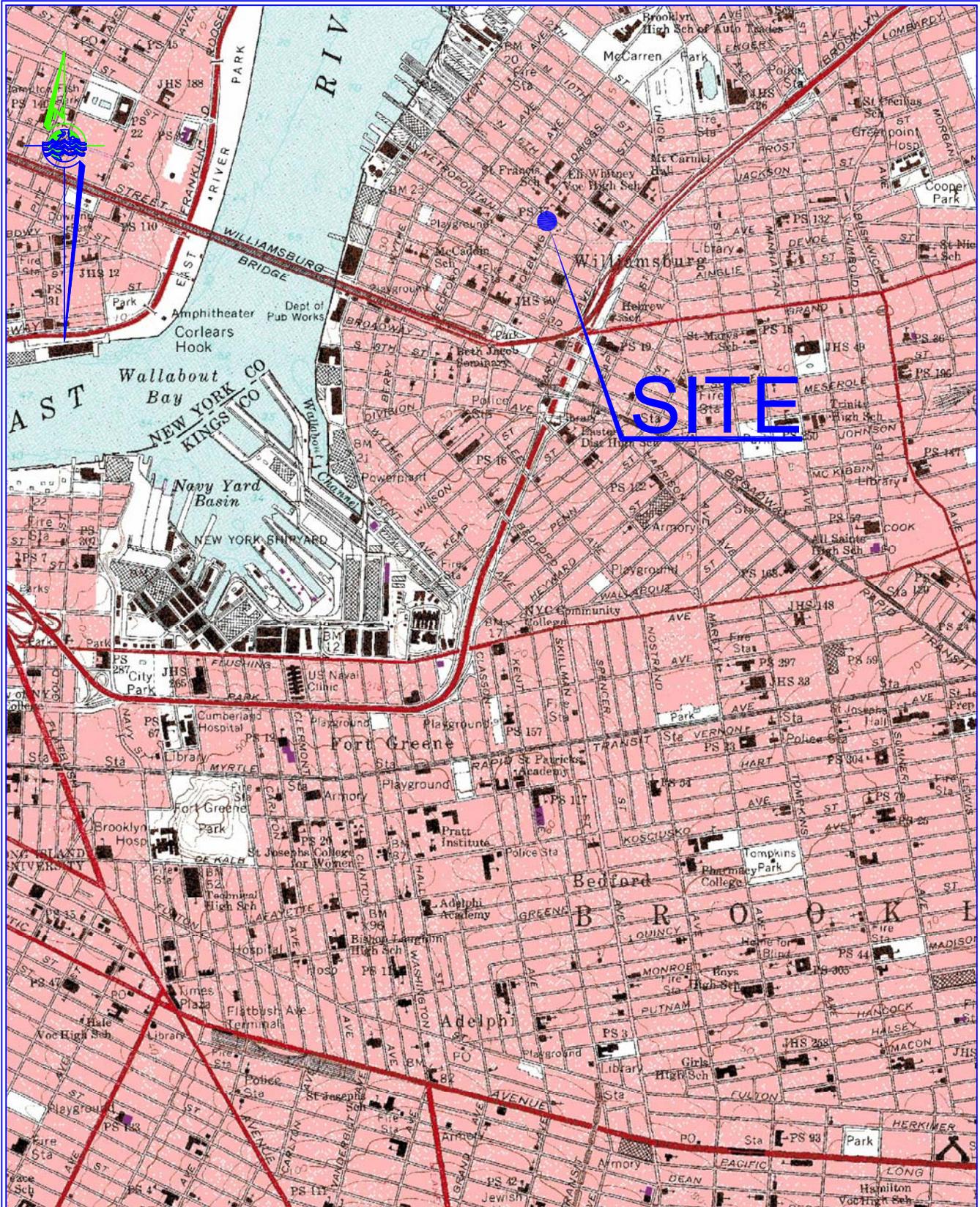
Analytical results will be evaluated to determine if routine monitoring of the site will be required or if the remedial action was sufficient to warrant closure of the spill.

7.0 SCHEDULE

The estimated duration of the Remedial Action is estimated at two years as identified below:

1. Excavate and dispose of the onsite underground storage tanks (estimated one week),
2. Excavate and dispose of impacted soil (estimated one week),
3. Collect and analyze endpoint soil samples (estimated two weeks)
4. Backfill excavation(s) (estimated one week)
5. Install, survey and sample groundwater monitoring wells (estimated two weeks)
6. Install and survey recovery wells in the area of the LNAPL and perform VEFR events (estimated one year)
7. Inject chemical oxidants (estimated two months),
8. Perform post injection monitoring and sampling (estimated eight months)

FIGURES

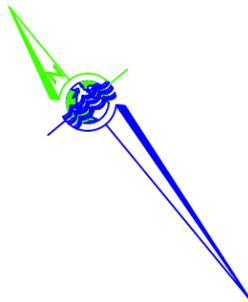


Mapped, edited, and published by the Geological Survey
 Revised in cooperation with New York
 Department of Transportation
 Control by USGS, USC&GS, and New Jersey Geodetic Survey

VICINITY MAP

SCALE: 1:24000

J:\Projects M-R\MAB\MAB1002\cad\Vicinity Map.dwg (8x11V) Oct 19,2010-9:50am By: guzman



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DRAWINGS PREPARED FOR

REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION

PROJECT:	MAB1001	APPROVED BY:	PWG
DESIGNED BY:	JL	DATE:	7/15/10
DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

SITE PLAN W/ GROUNDWATER SAMPLING RESULTS

291 METROPOLITAN AVE.
 BROOKLYN, NY

FIGURE NO	2
SHEET	OF

N 4th STREET

SIDEWALK

REGIONAL GROUNDWATER FLOW DIRECTION

FUEL OIL

SB-9 [NS]

SB-6 [ND]

SB-10 [34.25 ug/L]

BUILDING

AWNING

SIDEWALK

1,000

[LNAPL]

SB-7

PARKING LOT

SB-2 [128,988 ug/L]

100,000

FILL PORT

WASTE OIL

SB-5 [NS]

SB-8 [432.8 ug/L]

SB-1 [645 ug/L]

SB-4 [NS]

SB-3 [1,383 ug/L]

GASOLINE TANK & FORMER PUMP ISLAND

SIDEWALK

ROEBLING STREET

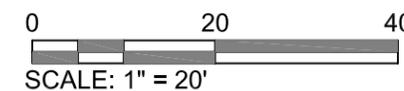
METROPOLITAN AVENUE

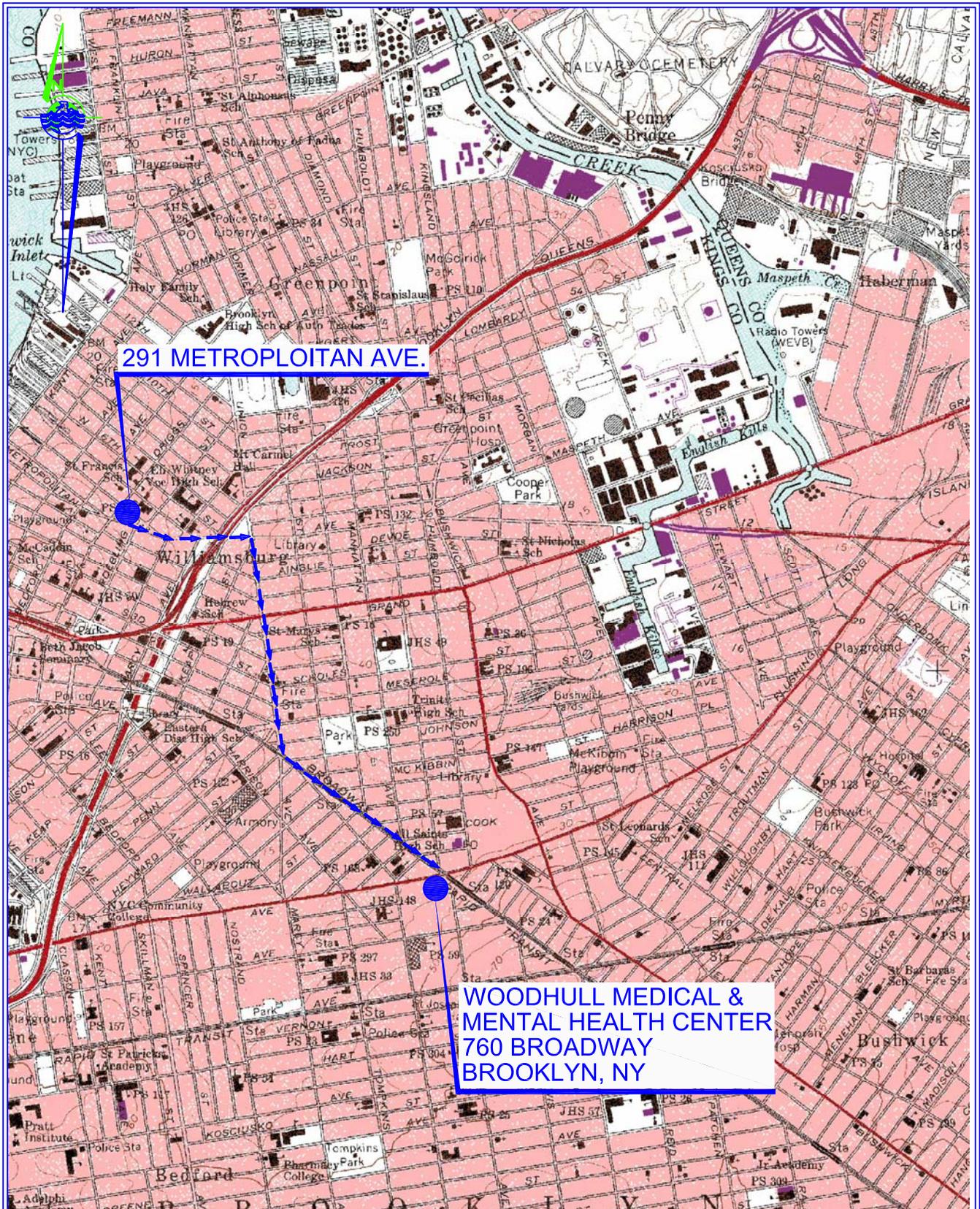
SITE PLAN W/ BORING LOCATIONS

SCALE: 1" = 20'

- LEGEND**
- SB-1 BORING LOCATION
 - GROUNDWATER CONTOUR
 - - - INFERRED GROUNDWATER CONTOUR
 - [1,383 ug/L] DISSOLVED TVOC CONCENTRATION
 - NS NOT SAMPLED
 - ND NOT DETECTED

BASEMAP PROVIDED BY:
 GOOGLE EARTH





291 METROPOLITAN AVE.

WOODHULL MEDICAL & MENTAL HEALTH CENTER
760 BROADWAY
BROOKLYN, NY

HOSPITAL ROUTE MAP

SCALE = 1:24,000

Mapped, edited, and published by the Geological Survey
Revised in cooperation with New York
Department of Transportation

Control by USGS, USC&GS, and New Jersey Geodetic Survey

J:\Projects M-R\MAB\MAB1002\cad\Fig 5 Hospital Route Map.dwg (8x11V) Nov 18,2010-2:45pm By: guzman

APPENDIX A

NYSDEC Correspondence

Rocky W. Wenskus

From: Raphael Ketani [rvketani@gw.dec.state.ny.us]
Sent: Tuesday, September 28, 2010 12:21 PM
To: Rocky W. Wenskus
Subject: Re: 291 Metropolitan Avenue Supplemental Report

The DEC has reviewed the Supplemental Phase II dated 9/22/10. We concur with the recommendations in the report and request that P.W. Grosser proceed as soon as possible to remediate the contamination.

Thank you,
Rafiel

>>> "Rocky W. Wenskus" <RockyW@pwgrosser.com> 9/27/2010 2:28 PM >>>
Mr. Ketani,

Attached is the report for the above referenced site.

If you have any questions or comments, please contact me at the number below.

Sincerely,

Rocky Wenskus
Senior Hydrogeologist



P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716

Phone: 631.589.6353
Fax: 631.589.8705
E-mail: rockyw@pwgrosser.com
Web: www.pwgrosser.com

The information contained in this e-mail, including any attachments, is intended solely for the use of the individual to which it is addressed and may contain information that is privileged and confidential. Any review, use, distribution or disclosure by others is strictly prohibited. If you have received this communication in error, please notify the sender immediately and delete the email message along with any attachments. Thank you.

 Please consider the environment - think before you print!

APPENDIX B

Regenesis Product Sheets



October 19, 2010

Proposal No. 1MD11732

Rocky Wenskus
P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, NY 11716

Subject: Site Remediation with RegenOx™ and ORC *Advanced* (Advanced Formula Oxygen Release Compound) at the Metropolitan Avenue Site

Dear Rocky:

Thank you for your interest in RegenesiS and our state-of-the-art chemical oxidation product RegenOx™. We have reviewed the information you provided for the Metropolitan Avenue site and developed a preliminary design and cost estimate for site treatment based on that information. We are also attaching, for your reference, general information on RegenOx and methods of delivery of RegenOx to the subsurface.

Please note this proposal includes material costs for a series of 2 RegenOx injection events all of which should be completed over the proposed treatment area within about a 4-8 week period (i.e., 4 weeks apart). Additionally, we have proposed an additional treatment with Oxygen Release Compound *Advanced* (ORC *Advanced*) after the chemical oxidation is complete, in order to ensure continued long-term destruction of the remaining contaminants on your site. As you may already be aware, RegenOx™ was specifically designed to facilitate a seamless transition to “polishing” with low-cost, passive *in-situ* bioremediation.

Preliminary Design and Cost Details for RegenOx and ORC *Advanced* Applications

Based on the data provided and our conversation, we have provided the material cost associated with applying RegenOx and ORC *Advanced* throughout two treatment areas. The injection program combines chemical oxidation and bioremediation. The RegenOx /ORC *Advanced* blend is proposed to incorporate both chemical oxidation and bioremediation. The chemical oxidation is used to rapidly reduce contaminant mass and the ORC *Advanced* is used to supply a long term source of oxygen to promote aerobic biodegradation after the RegenOx/chemical oxidation phase is complete. The ORC *Advanced* is expected to remain active for 9-12 months.

The approximate locations of the proposed treatment areas are shown on the attached figure. Area 1 is a 30 ft. by 40 ft. area of the contaminated zone at the site and across a vertical thickness of 5 ft. Area 2, the area surrounding SB-3, is a 30 ft. by 10 ft. area of the contaminated zone at the site and across a vertical thickness of 5 ft. The design specifications for this treatment approach are found in a subsequent table and in the attached spreadsheet.

48 CUMBERLAND ROAD ~ SOUTH PORTLAND, ME 04106
TELEPHONE:207-767-0007 ~ FAX:207-767-0020

cketcham@regenesiS.com ~ www.regenesiS.com

The Regensis Technical Services Group is available to assist in the selection of an appropriate final design.

RegenOx and ORC Advanced Grid Treatment – Area 1	
Design Feature	Specification
Saturated thickness requiring treatment	5 feet
Treatment area	30 feet x 40 feet
Delivery point spacing and configuration	10 ft-on-center bet. rows, 10 ft-on-center within rows 4 rows of 3 points (offset); 12 total points
RegenOx dose rate in lbs/vertical foot of injection	Injection Event 1: 20 lbs/foot, (100 lbs/point) Injection Event 2: 15 lbs/foot, (75 lbs/point)
RegenOx material requirement (2 events)	2,100 lbs
RegenOx material cost at \$2.50/lb	\$5,250 plus shipping and applicable sales tax
ORC Advanced dose rate in lbs/vertical foot of injection	Injection Event 2 (only): 7 lbs/foot, (35 lbs/point)
ORC Advanced material requirement	12 pts. x 5 feet x 7 lbs/ft = 420 lbs adjusted amount: 425 lbs (ORC <i>Advanced</i> sold in 25 lbs units)
ORC Advanced material cost at \$8.95/lb	\$3,804 plus shipping and applicable sales tax

ORC Advanced Grid Treatment – Area 2	
Design Feature	Specification
Saturated thickness requiring treatment	5 feet
Treatment area	10 feet x 30 feet
Delivery point spacing and configuration	10 ft-on-center bet. rows, 10 ft-on-center within rows 1 rows of 3 points (offset); 3 total points
ORC Advanced dose rate in lbs/vertical foot of injection	Injection Event 1: 5 lbs/foot, (25 lbs/point)
ORC Advanced material requirement	3 pts. x 5 feet x 5 lbs/ft = 75 lbs
ORC Advanced material cost at \$8.95/lb	\$671 plus shipping and applicable sales tax

To ensure the most effective distribution of the RegenOx material within the subsurface, the injection point locations should be offset (moved roughly 5 feet) from one injection event to the next.

Total Material Cost

We recommend injection of a total of 2,100 lbs of RegenOx at the Metropolitan Avenue site within the remediation areas. The total cost for this amount of RegenOx is \$5,250 plus applicable sales tax and shipping.

For the follow-up ORC *Advanced* treatment we are recommending that a total of 500 lbs of the product be applied. The total cost for this quantity of material is \$4,475 plus applicable sales tax and shipping.

Performance Goals for RegenOx Projects

The primary goals for a chemical oxidation project are to (1) rapidly reduce the mass of contaminants in the subsurface and (2) to stabilize and/or reduce the size of the contaminant plume. Please note that after the injection of any chemical oxidant to a contaminated aquifer, dissolved-phase contamination will be reduced initially, but will then rebound somewhat in most cases, as the sorbed contaminants become redissolved. It is therefore critically important to accurately estimate the mass of soil-bound contaminant within the subsurface and to anticipate and allow for this predictable rebound in dissolved-phase contaminants after the initial injection. It is for this reason that Regenesis strongly recommends the use of a series of RegenOx injections performed about 4 weeks apart.

Regenesis' ORC- *Advanced*® is state-of-the-art technology for the controlled release of oxygen into contaminated groundwater and soils. The use of this product to successfully meet project objectives, however, is dependent upon a number of factors beyond the control of Regenesis. It is important that these factors be considered by those planning to use ORC- *Advanced*®. Failure to do so can result in unexpected or poor project results.

As with any other remediation technology, chemical oxidation projects often reach asymptotic performance conditions. Therefore, a realistic set of goals should be established before the project is started. In many cases a cost-effective treatment strategy includes the recommended series of three RegenOx injections to rapidly reduce contaminant mass at the site, followed by application of a slow-release bioremediation amendment such as Oxygen Release Compound (ORC®) or Oxygen Release Compound Advanced (ORC- *Advanced*®). As noted earlier, this approach assures continued long-term treatment of remaining contaminants through low-cost bioremediation after the chemical oxidation treatment is complete.

Recommended Monitoring Program for RegenOx™ Projects

In order to validate the effectiveness of the chemical oxidant, we recommend conducting monitoring at selected locations. A baseline round of sampling should be performed to identify the groundwater quality/conditions and soil concentrations prior to the injection of the chemical oxidant. The following table outlines the parameters and methods that should be used to monitor the progress of an oxidant-based project as well as our recommended monitoring schedule.

Regenesis recommends collecting a soil sample for contaminant analysis at baseline (when RegenOx is being applied) and prior to any future oxidant applications. In some cases the mass of contaminant is elevated in soil and while there a reduction in the mass of contaminant after an oxidation event may occur, groundwater levels may rebound if soil contamination remains elevated. Therefore, if soil samples can be analyzed over the course of the remediation, contaminant reduction can be tracked in both soil and groundwater fractions.

Once the RegenOx phase of the program is complete, quarterly monitoring for 1 year is recommended to monitor the progress of the ORC *Advanced*/bioremediation phase of the project.

Chemical Oxidation Monitoring Program – Recommended Analyses

	Analyte	Method	Baseline	2 Weeks	4 weeks
Field	pH, dissolved oxygen (DO), oxidation/reduc.potential (ORP), temperature, conductivity	Meter reading taken in flow-through cell (DO can also be measured with a Hach field test kit)	X	X	X
	Chemical Oxidant	Spectrophotometric Method or Field Test for hydrogen peroxide	X	X	X
Laboratory	Target Contaminant Analysis		X		X
	Dissolved iron and manganese		X		X
	Chemical Oxidant Demand (COD)		X		X

Groundwater Monitoring Locations

The following table outlines the suggested locations and significance of monitoring wells used to monitor the progress of a RegenOx and ORC *Advanced* -based project.

Location	Significance
Background (Outside the groundwater plume)	Allows for the changes in natural attenuation conditions induced by addition of RegenOx/ORC <i>Advanced</i> to be compared to background levels
Upgradient of treatment zone	Provides a measure of contaminant and competing electron acceptor flux entering treatment zone
Inside treatment zone	Provides information on how RegenOx/ORC <i>Advanced</i> is affecting the aquifer conditions and contaminant concentrations

Downgradient of treatment zone	Provides information on the effect RegenOx/ORC <i>Advanced</i> is having on the biodegradation rates of contaminants and on aquifer conditions and confirms the mitigation migration
--------------------------------	--

Site Characterization

This design/proposal is based upon site characteristics and professional opinions provided by P.W. Grosser Consulting. It is the responsibility of P.W. Grosser Consulting to ensure that the site characteristics provided to Regenesis and subsequently used in this design are representative of actual site characteristics. Actual site characteristics e.g. identification of the appropriate vertical treatment zone, that vary from those provided for this design may directly affect the overall performance of the project.

Subsurface Product Delivery

Product delivery during application is of the highest importance in ensuring project success. Attention must be given to both horizontal and vertical placement of the product. The professional judgment of P.W. Grosser Consulting should be used to identify the appropriate treatment zone (vertical and lateral). The identified treatment zone should consider the distribution of the targeted contaminant as well as variations in subsurface permeability that might preferentially channel the product during application. Finally, it is the responsibility of P.W. Grosser Consulting to ensure that the field delivery methods used by the applicator actually deliver the product into the identified treatment zone.

Project Responsibility

Regenesis trusts that the present proposal is sufficiently complete. Given the nature and extent of project factors beyond the control of Regenesis, it must be understood that the responsibility for successful project implementation remains with P.W. Grosser Consulting. However, as always, Regenesis would be pleased to assist with any technical support and product application advice we may be able to offer.

Regenesis Support

Regenesis is committed to supporting its customers with the highest level of service available in the remediation product industry. Please feel free to contact Maureen Dooley at 781-245-1320 or me at 207-767-0007.

Sincerely,

Corinne Ketcham
Technical Manager – Northeast Region



RegenOx Summary Page

Regenesis Technical Support: USA (949) 366-8000

Site Name: Area 1

Location: Metropolitan ave Brooklyn

Consultant: PW Grosser

Application Design Input Parameters

Width of plume (intersecting gw flow direction)	30	ft
Length of plume (parallel to gw flow direction)	40	ft
Thickness of contaminated zone	5	ft
Soil type	silty sand	

Design Summary - INITIAL APPLICATION ONLY

Number of RegenOx injection points (initial app)	12	pts
RegenOx dose rate (oxidant + activator) (initial app)	20.0	lbs/ft
Total amount of water required for initial application	1,295	gallons
Total volume of RegenOx solution applied per foot of injection (initial app)	23.6	gallons/ft

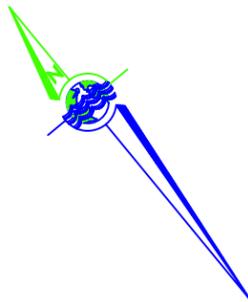
Estimated number of RegenOx applications required (enter 1 through 6) **2**

Summary of Estimated RegenOx Totals

Application number	Part A RegenOx Oxidant (lbs)	Part B RegenOx Activator (lbs)	Total RegenOx Material Requirement (lbs)	Cumulative Amount of Oxidant (Part A) Applied (lbs)	Cumulative Amount of Activator (Part B) Applied (lbs)	Cumulative RegenOx Cost	Total RegenOx Material Cost Per Application
First	600	600	1,200	600	600	[REDACTED COST DATA]	[REDACTED COST DATA]
Second	600	300	900	1,200	900		
Third	0	0	0	0	0		
Fourth	0	0	0	0	0		
Fifth	0	0	0	0	0		
Sixth	0	0	0	0	0		
TOTALS	1,200	900	2,100				

Volume discount if purchased
(not including shipping or applicable taxes)

Unit Price: \$2.50/lb
 2100lbs @ \$2.50/lb =
 \$5250, plus ship/tax



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DRAWINGS PREPARED FOR

REVISION	DATE	INITIALS	COMMENTS

DRAWING INFORMATION

PROJECT:	MAB1001	APPROVED BY:	PWG
DESIGNED BY:	JL	DATE:	7/15/10
DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

SITE PLAN W/ GROUNDWATER SAMPLING RESULTS

291 METROPOLITAN AVE. BROOKLYN, NY

FIGURE NO	1
SHEET	1 OF 1

N 4th STREET

SIDEWALK

REGIONAL GROUNDWATER FLOW DIRECTION

FUEL OIL

SB-9 [NS]

SB-6 [ND]
SB-10 [34.25 ug/L]

BUILDING

AWNING

SIDEWALK

ROLLING STREET

1,000

[LNAPL] SB-7

Area 1: 30 x 40

FILL PORT

WASTE OIL

PARKING LOT

SB-2 [128,988 ug/L]

100,000

SB-1 [645 ug/L]

SB-5 [NS]

SB-8 [452.6 ug/L]

GASOLINE TANK & FORMER PUMP ISLAND

Area 2: 300ft²

SB-4 [NS]
SB-3 [1,383 ug/L]

SIDEWALK

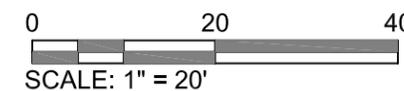
METROPOLITAN AVENUE

SITE PLAN W/ BORING LOCATIONS

SCALE: 1" = 20'

- LEGEND**
- SB-1 BORING LOCATION
 - GROUNDWATER CONTOUR
 - - - INFERRED GROUNDWATER CONTOUR
 - [1,383 ug/L] DISSOLVED TVOC CONCENTRATION
 - NS NOT SAMPLED
 - ND NOT DETECTED

BASEMAP PROVIDED BY:
GOOGLE EARTH



Regen OX – Part B (Activator Complex)

Material Safety Data Sheet (MSDS)

Last Revised: November 7, 2005

Section 1 – Supplier Information and Material Identification

Supplier:



REGENESIS

1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Description: A mixture of sodium silicate solution, silica gel and ferrous sulfate

Chemical Family: Inorganic Chemicals

Trade Name: Regen Ox – Part B (Activator Complex)

Product Use: Used for environmental remediation of contaminated soils and groundwater

Section 2 – Chemical Information/Other Designations

<u>CAS No.</u>	<u>Chemical</u>
1344-09-8	Silicic Acid, Sodium Salt, Sodium Silicate
63231-67-4	Silica Gel
7720-78-7	Ferrous Sulfate
7732-18-5	Water

Section 3 – Physical Data

Form: Liquid

Color: Blue/Green

Odor: Odorless

Melting Point: NA

Boiling Point: NA

Flammability/Flash Point: NA

Vapor Pressure: NA

Section 3 – Physical Data (cont)

Specific Gravity	1.39 g/cm ³
Solubility:	Miscible
Viscosity:	NA
pH (3% solution):	11
Hazardous Decomposition Products:	Oxides of carbon and silicon may be formed when heated to decomposition.

Section 4 – Reactivity Data

Stability:	Stable under normal conditions.
Conditions to Avoid:	None.
Incompatibility:	Avoid hydrogen fluoride, fluorine, oxygen difluoride, chlorine trifluoride, strong acids, strong bases, oxidizers, aluminum, fiberglass, copper, brass, zinc, and galvanized containers.

Section 5 – Regulations

TSCA Inventory Listed:	Yes
CERCLA Hazardous Substance (40 CFR Part 302)	
Listed Substance:	<i>No</i>
Unlisted Substance:	<i>Yes</i>
SARA, Title III, Sections 302/303 (40 CFR Part 355) – Emergency Planning and Notification	
Extremely Hazardous Substance:	No
SARA, Title III, Sections 311/312 (40 CFR Part 370) – Hazardous Chemical Reporting: Community Right-To-Know	
Hazard Category:	Acute
SARA, Title III, Sections 313 (40 CFR Part 372) – Toxic Chemical Release Reporting: Community Right-To-Know	
Extremely Hazardous Substance:	No

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage: Keep in a tightly closed container (steel or plastic) and store in a cool, well ventilated area away from all incompatible materials (acids, reactive metals, and ammonium salts). Store in a dry location away from heat and in temperatures less than 24 °C. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Use with adequate ventilation.
Do not use product if it is brownish-yellow in color.

Personal Protective Equipment (PPE)

Engineering Controls: General room ventilation is required if used indoors. Local exhaust ventilation, process enclosures or other engineering controls may be needed to maintain airborne levels below recommended exposure limits. Safety shower and eyewash station should be within direct access.

Respiratory Protection: Use NIOSH-approved dust and mist respirator where spray mist exists. Respirators should be used in accordance with 29 CFR 1910.134.

Hand Protection: Wear chemical resistant gloves.

Eye Protection: Wear chemical safety goggles. A full face shield may be worn in lieu of safety goggles.

Skin Protection: Try to avoid skin contact with this product. Gloves and protective clothing should be worn during use.

Other:

Protection Against Fire & Explosion: Product is non-explosive and non-combustible.

Section 7 – Hazards Identification

Potential Health Effects

Inhalation:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath, and irritations to mucous membranes, nose and throat.
Eye Contact:	Causes irritation, redness and pain.
Skin Contact:	Causes irritation. Symptoms include redness, itching and pain.
Ingestion:	May cause irritation to mouth, esophagus, and stomach.

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage (small):	Mop up and neutralize liquid, then discharge to sewer in accordance with local, state and federal regulations.
After Spillage/Leakage (large):	Keep unnecessary personnel away; isolate hazard area and do not allow entrance into the affected area. Do not touch or walk through spilled material. Stop leak if possible without risking injury. Prevent runoff from entering into storm sewers and ditches that lead to natural waterways. Isolate the material if at all possible. Sand or earth may be used to contain the spill. If containment is not possible, neutralize the contaminated area and flush with large quantities of water.
Extinguishing Media:	Material is compatible with all extinguishing media.
Further Information:	
First Aid	
Eye Contact:	Flush eyes with running water for at least 15 minutes with eyelids held open. Seek a specialist.
Inhalation:	Remove affected person to fresh air. Give artificial respiration if individual is not breathing. If breathing is difficult, give oxygen. Seek medical attention if the effects persist.
Ingestion:	If the individual is conscious and not convulsing, give two-four cups of water to dilute the chemical and seek medical attention immediately. <u>DO NOT</u> induce vomiting.
Skin Contact:	Wash affected areas with soap and a mild detergent and large amounts of water. Remove contaminated clothing and shoes.

Section 9 – Accidental Release Measures

Precautions:

PPE: Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots (see Section 6).

Environmental Hazards: Sinks and mixes with water. High pH of this material may be harmful to aquatic life. Only water will evaporate from a spill of this material.

Cleanup Methods: Pick-up and place in an appropriate container for reclamation or disposal. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

Section 10 – Information on Toxicology

Toxicity Data

Sodium Silicate: When tested for primary eye irritation potential according to OECD Guidelines, Section 405, a similar sodium silicate solution produced corneal, iridal and conjunctival irritation. Some eye irritation was still present 14 days after treatment, although the average primary irritation score has declined from 29.7 after 1 day to 4.0 after 14 days. When tested for primary skin irritation potential, a similar sodium silicate solution produced irritation with a primary irritation index of 3 to abraded skin and 0 to intact skin. Human experience confirms that irritation occurs when sodium silicates get on clothes at the collar, cuffs, or other areas where abrasion may exist.

The acute oral toxicity of this product has not been tested.

Ferrous Sulfate: LD50 Oral (rat): 319 mg/kg not a suspected carcinogen.

Section 11 – Information on Ecology

Ecology Data

Ecotoxicological Information: Based on 100% solid sodium silicate, a 96 hour median tolerance for fish of 2,320 mg/l; a 96 hour median tolerance for water fleas of 247 mg/L; a 96 hour median tolerance for snail eggs of 632 mg/L; and a 96 hour median tolerance for Amphipoda of 160 mg/L.

Section 12 – Disposal Considerations

Waste Disposal Method

Waste Treatment: Neutralize and landfill solids in an approved waste facility operated by an authorized contactor in compliance with local regulations.

Package (Pail) Treatment: The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

Section 13 – Shipping/Transport Information

D.O.T. This product is not regulated as a hazardous material so there are no restrictions.

Section 14 – Other Information

HMIS[®] Rating	Health – 2 (moderate)	Reactivity – 0 (none)
	Flammability – 0 (none)	Lab PPE – goggles, gloves, and lab coat
	Contact – 1 (slight)	

HMIS[®] is a registered trademark of the National Painting and Coating Association.

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Regen OX – Part A (Oxidizer Complex)

Material Safety Data Sheet (MSDS)

Last Revised: November 7, 2005

Section 1 – Supplier Information and Material Identification

Supplier:



REGENESIS

1011 Calle Sombra
San Clemente, CA 92673
Telephone: 949.366.8000
Fax: 949.366.8090
E-mail: info@regenesis.com

Chemical Description: A mixture of sodium percarbonate [2Na₂CO₃·3H₂O₂], sodium carbonate [Na₂CO₃], sodium silicate and silica gel.

Chemical Family: Inorganic Chemicals

Trade Name: Regen Ox – Part A (Oxidizer Complex)

Product Use: Used to remediate contaminated soil and groundwater (environmental applications)

Section 2 – Chemical Information/Other Designations

<u>CAS No.</u>	<u>Chemical</u>
15630-89-4	Sodium Percarbonate
5968-11-6	Sodium Carbonate Monohydrate
1344-09-8	Silicic Acid, Sodium Salt, Sodium Silicate
63231-67-4	Silica Gel

Section 3 – Physical Data

Form: Powder

Color: White

Odor: Odorless

Melting Point: NA

Boiling Point: NA

Section 3 – Physical Data (cont)

Flammability/Flash Point:	NA
Vapor Pressure:	NA
Bulk Density:	0.9 – 1.2 g/cm ³
Solubility:	Min 14.5g/100g water @ 20 °C
Viscosity:	NA
pH (3% solution):	~ 10.5
Decomposition Temperature:	Self-accelerating decomposition with oxygen release starts at 50 °C.

Section 4 – Reactivity Data

Stability:	Stable under normal conditions
Conditions to Avoid/Incompatibility:	Acids, bases, salts of heavy metals, reducing agents, and flammable substances
Hazardous Decomposition Products:	Oxygen. Contamination with many substances will cause decomposition. The rate of decomposition increases with increasing temperature and may be very vigorous with rapid generation of oxygen and steam.

Section 5 – Regulations

TSCA Inventory Listed:	Yes
CERCLA Hazardous Substance (40 CFR Part 302)	
Listed Substance:	<i>No</i>
Unlisted Substance:	<i>Yes</i>
SARA, Title III, Sections 313 (40 CFR Part 372) – Toxic Chemical Release Reporting: Community Right-To-Know	
Extremely Hazardous Substance:	No
WHMIS Classification:	C, D2B
Canadian Domestic Substance List:	Appears

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

- Storage:** Oxidizer. Store in a cool, well ventilated area away from all sources of ignition and out of the direct sunlight. Store in a dry location away from heat and in temperatures less than 40 °C.
- Keep away from incompatible materials and keep lids tightly closed. Do not store in improperly labeled containers.
- Protect from moisture. Do not store near combustible materials. Keep containers well sealed.
- Store separately from reducing materials. Avoid contamination which may lead to decomposition.
- Handling:** Avoid contact with eyes, skin and clothing. Use with adequate ventilation.
- Do not swallow. Avoid breathing vapors, mists or dust. Do not eat, drink or smoke in the work area.
- Label containers and keep them tightly closed when not in use.
- Wash hands thoroughly after handling.

Personal Protective Equipment (PPE)

- Engineering Controls:** General room ventilation is required if used indoors. Local exhaust ventilation, process enclosures or other engineering controls may be needed to maintain airborne levels below recommended exposure limits. Avoid creating dust or mists. Maintain adequate ventilation at all times. Do not use in confined areas. Keep levels below recommended exposure limits. To determine actual exposure limits, monitoring should be performed on a routine basis.
- Respiratory Protection:** For many conditions, no respiratory protection is necessary; however, in dusty or unknown conditions or when exposures exceed limit values a NIOSH approved respirator should be used.
- Hand Protection:** Wear chemical resistant gloves (neoprene, rubber, or PVC).

Section 6 – Protective Measures, Storage and Handling (cont)

Eye Protection:	Wear chemical safety goggles. A full face shield may be worn in lieu of safety goggles.
Skin Protection:	Try to avoid skin contact with this product. Chemical resistant gloves (neoprene, PVC or rubber) and protective clothing should be worn during use.
Other:	Eye wash station.
Protection Against Fire & Explosion:	Product is non-explosive. In case of fire, evacuate all non-essential personnel, wear protective clothing and a self-contained breathing apparatus, stay upwind of fire, and use water to spray cool fire-exposed containers.

Section 7 – Hazards Identification

Potential Health Effects

Inhalation:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath, and irritations to mucous membranes, nose and throat.
Eye Contact:	Causes irritation, redness and pain.
Skin Contact:	Causes slight irritation.
Ingestion:	May be harmful if swallowed (vomiting and diarrhea).

Section 8 – Measures in Case of Accidents and Fire

After Spillage/Leakage:	Eliminate all ignition sources. Evacuate unprotected personnel and never exceed any occupational exposure limit. Shovel or sweep spilt material into plastic bags or vented containers for disposal. Do not return spilled or contaminated material to the inventory.
Extinguishing Media:	Water
First Aid	
Eye Contact:	Flush eyes with running water for at least 15 minutes with eyelids held open. Seek a specialist.
Inhalation:	Remove affected person to fresh air. Seek medical attention if the effects persist.
Ingestion:	If the individual is conscious and not convulsing, give two-four cups of water to dilute the chemical and seek medical attention immediately. Do Not induce vomiting.

Section 8 – Measures in Case of Accidents and Fire (cont)

Skin Contact: Wash affected areas with soap and a mild detergent and large amounts of water.

Section 9 – Accidental Release Measures

Precautions:

Cleanup Methods: Shovel or sweep spilt material into plastic bags or vented containers for disposal. Do not return spilled or contaminated material to the inventory.

Section 10 – Information on Toxicology

Toxicity Data

LD50 Oral (rat): 2,400 mg/kg
LD50 Dermal (rabbit): Min 2,000 mg/kg
LD50 Inhalation (rat): Min 4,580 mg/kg

Section 11 – Information on Ecology

Ecology Data

Ecotoxicological Information: NA

Section 12 – Disposal Considerations

Waste Disposal Method

Waste Treatment: Dispose of in an approved waste facility operated by an authorized contactor in compliance with local regulations.

Package (Pail) Treatment: The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

Section 13 – Shipping/Transport Information

D.O.T. Shipping Name:	Oxidizing Solid, N.O.S. [A mixture of sodium percarbonate [2Na ₂ CO ₃ ·3H ₂ O ₂], sodium carbonate [Na ₂ CO ₃], sodium silicate and silica gel.]
UN Number:	1479
Hazard Class:	5.1
Labels:	5.1 (Oxidizer)
Packaging Group:	III

Section 14 – Other Information

HMIS[®] Rating	Health – 1 (slight)	Reactivity – 1 (slight)
	Flammability – 0 (none)	Lab PPE – goggles, gloves, and lab coat

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PRINCIPLES OF CHEMICAL OXIDATION TECHNOLOGY

for the Remediation of Groundwater and Soil



Design and Application Manual

**Updated Version 2.0
March 2007**



REGENESIS

Advanced Technologies for Groundwater Resources

www.regenesis.com

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1.0 INTRODUCTION

1.1 Purpose

The intention of this manual is to serve as a reference point to allow the reader to understand the current “best practices” in chemical oxidation technology and more specifically the application of RegenOx™, the state-of-the-art remediation technology developed by Regenesis. It is Regenesis’ intent to periodically update this publication so as to offer the reader an up-to-date reference. These updates will be posted periodically at the website <http://www.regenesis.com>.

The first three sections of this manual (1-3) describe the basic chemical oxidation mechanisms and the technical attributes of chemical oxidation products. Then, Section 4- Biological Treatment Following Chemical Oxidation describes the coupling of chemical oxidation technology with accelerated bioremediation.

The balance of the manual deals with technology application. Section 5- Expectations of Chemical Oxidation - deals specifically with setting realistic objectives for remediation and properly managing performance expectations. Sections 6 through 10 offer design and application guidance on successfully completing a chemical oxidation project. Lastly, Section 11 describes technical support available by Regenesis to engineering firms for the design and application of chemical oxidation to treat subsurface contamination.

1.2 Chemical Oxidation - A Contaminant Mass Reduction Technology

The use of chemical oxidation technology as a form of *in situ* soil and groundwater remediation has been practiced for at least two decades. Early practitioners realized the potential for harnessing chemical oxidation processes employed in wastewater treatment to rapidly destroy organic contaminants in soil and groundwater. On the heels of this early work, a significant body of research has been accomplished elucidating many of the reactions that are involved with *in situ* applications of chemical oxidation technologies, and the many factors that influence the outcome of such projects. Valuable contributions have been made by researchers in academia as well as practitioners in the field regarding specific oxidative chemistries, the interactions of the oxidative species with native materials, and the requirements for successful delivery. Further, it is

Further, it is now clear to many that chemical oxidation is best coupled with accelerated bioremediation for more successful site management; a program that Regenesis is uniquely qualified to deliver with its range of expertise and products.

now clear to many that chemical oxidation is best coupled with accelerated bioremediation for more successful site management; a program that Regenesis is uniquely qualified to deliver with its range of expertise and products.

Chemical oxidation has been used successfully to remove significant contaminant mass from soils and groundwater at numerous sites. Using a variety of oxidants, such as hydrogen peroxide, permanganate, persulfate, percarbonate, and ozone, some success has been seen with a majority of the Contaminants of Concern (COCs). Hydrogen peroxide has been shown to be effective for petroleum-based COCs and permanganate had been used for chlorinated solvents. Most researchers and practitioners believe that the technology has the ability to rapidly reduce large masses of contamination; however, the promise of chemical oxidation to rapidly and completely degrade target contaminants *in situ* has been overstated. Site owners or responsible parties have been disappointed as chemical oxidation has failed to meet their expectations of reaching low (ppb) contaminant concentrations within a short period of time. The requirement for direct oxidant-contaminant interaction, matrix interactions effects, contaminant desorption, plume distribution, and a range of other factors are now seen as inhibiting the simplistic view of complete and rapid treatment *in situ*.

What has emerged from these cumulative experiences is that *in situ* chemical oxidation technology is a technically sound and potentially cost effective approach for affecting a contaminant mass reduction in a relatively short period of time. However, following a single addition of an oxidant, rebound of **dissolved** contaminant concentrations is the norm. Most practitioners now realize that in order to reach low contaminant concentrations there is a requirement for multiple injections followed by engineered bioremediation.

To emphasize this point we present some very recent and seminal work that has emerged through SERDP/ESTCP funded research that asks the hard questions about source treatment and **dissolved phase contaminant** rebound. The following is an excerpt from a paper accepted for peer reviewed publication and used herein with permission of the author C.J. Newell (McGuire, T.M., J.M. McDade, and C.J. Newell, 2005. Groundwater Monitoring and Remediation, in press).

“Few sites where ISCO has been implemented, if any, have achieved the treatment objectives in a single application.”--USEPA¹

“The occurrence of rebound (i.e., an increase in groundwater concentrations following treatment completion) is another important factor in evaluating the success of source depletion technologies. Many case studies and literature reports document decreases in concentrations following source depletion activities. However, the data presented is typically of short duration and does not allow a complete assessment of whether or not the reduction achieved was permanent (Parsons 2004, USEPA 2004, USEPA 2001, ESTCP 1999, USEPA 1998). Of the few studies that have monitored concentrations for extended periods beyond completion of source depletion activities, several have observed some level of concentration rebound (ITRC 2004, ESTCP 1999).

In order to more accurately assess the occurrence of rebound, sites with concentration records including at least one year of post-treatment data were evaluated. Results of the rebound analysis are presented in Table 1-1. Rebound was analyzed for 43 wells at 20 sites (10 enhanced bioremediation sites, 7 chemical oxidation sites, 2 surfactant/co-solvent sites, and 1 thermal site). On an individual well basis, rebound was observed in 15% of wells at enhanced bioremediation sites, in 81% of wells at chemical oxidation sites, in 33% of wells at surfactant/co-solvent sites, and was not observed in one well at the thermal site. Concentrations in several wells at chemical oxidation sites rebounded by as much as 1 to 2 orders of magnitude throughout the post-treatment monitoring period. In fact, at 30% of the chemical oxidation rebound wells, rebound resulted in concentrations higher than pre-treatment conditions. For rebound wells at enhanced bioremediation and surfactant/co-solvent sites, the increased concentrations observed during the post-treatment period were still below pre-treatment concentrations.”

TABLE 1-1: Evaluation of Rebound at Source Depletion Sites

Source Depletion Technology	Percent of sites with rebound at 1 or more well	Percent of sites with rebound at >50% of wells	Number of wells analyzed for rebound	Number of wells with rebound
Enhanced bioremediation	30	20	20	3
Chemical oxidation	88	57	16	13
Thermal treatment	50	0	1	0
Surfactant/co-solvent	0	0	6	0

Clearly, the respective costs of these treatments need to be considered as well. Thermal and surfactant treatments at smaller sites in particular would be problematical to justify relative to a chemical oxidation treatment. Our conclusion and that of many practitioners is that a coupled chemical and biological oxidation is the most cost effective approach at most sites.

1.3 Chemical Oxidation Coupled to Accelerated Bioremediation

In situ bioremediation through the use of injectable slow release substrates (such as Oxygen Release Compound or Hydrogen Release Compound) has long been recognized as a very cost effective technology for achieving low contaminant concentrations when applied to dissolved phase contaminant plumes. Areas of high contaminant concentrations such as source zones within and above the aquifer have remained a challenge to these and other technologies due to the high contaminant demand. Thus, what has emerged is the integrated approach of coupling chemical oxidation technology to reduce the contaminant mass in high concentration areas with a follow up application of a slow release bioremediation substrate to treat the remaining contaminant concentrations over time.

...the integrated approach of coupling chemical oxidation technology to reduce the contaminant mass in high concentration areas with a follow up application of a slow release bioremediation substrate to treat the remaining contaminant

1.4 Development of RegenOx™

Over the past decade, Regenesys has been responsible for leading the development of innovative *in situ* remediation products. Initially this development focused on slow release bioremediation products. More recently, however, attention was given to the invention of a chemical oxidation product capable of rapidly removing contaminant mass while at the same time coupling seamlessly to *in situ* bioremediation. Our customers

RegenOx™ is the new generation of chemical oxidation a proprietary ... in situ chemical oxidation process using a solid oxidant complex and an activator complex. RegenOx™ has very high activity, capable of treating a very broad range of soil and groundwater contaminants..... has significant longevity in the subsurface (and) when handled appropriately, is safe and easy to apply.

were looking for a product that was very active in reducing high concentrations (10 to 1,000 ppm) of contaminants, but also one that was easy to handle, non-detrimental to the environment, and very compatible with *in situ* bioremediation processes. In response Regenesys has developed RegenOx™.

RegenOx™ is the new generation of chemical oxidation. RegenOx™ is a proprietary (patent-applied-for) *in situ* chemical oxidation process using a solid oxidant complex (sodium percarbonate/catalytic formulation) and an activator complex (a composition of ferrous

salt embedded in a micro-scale catalyst gel). RegenOx™ with its catalytic system has very high activity, capable of treating a very broad range of soil and groundwater contaminants including both petroleum hydrocarbons and chlorinated solvents.

Additionally, RegenOx™ has significant longevity in the subsurface allowing for both the initial contaminant degradation and the continued treatment of contaminants desorbing from the matrix. Most importantly, RegenOx, when handled appropriately, is safe and easy to apply to the contaminated subsurface without the health and safety concerns and lingering environmental issues that have become associated with other chemical oxidation technologies.

2.0 CHEMICAL OXIDATION PRINCIPLES

In this Section we discuss the fundamental chemical principals behind the usage of RegenOx™. Even though sodium percarbonate provides molecules of hydrogen peroxide, the behavior and properties of a percarbonate solution is not the same as that of hydrogen peroxide solution. This section will describe how the thermodynamics, the radicals formed, and the alkaline conditions generated by RegenOx™ differ from other chemical oxidation systems.

2.1 Chemical Oxidation Mechanisms

A chemical oxidation reaction involves the breaking of chemical bonds and the removal of electrons. The electrons are transferred from the contaminant to the oxidant. The contaminant is in turn oxidized and the oxidant, the electron acceptor, is reduced. All reactions are always paired in this way – hence the term oxidation-reduction reaction. We use the term “direct oxidation” for this simplest of mechanisms. With RegenOx™ however, there are other more complex mechanisms including catalyzed direct oxidation and free radical mechanisms that mediate contaminant degradation by both oxidation and reduction.

2.1.1 Direct Chemical Oxidation

A molecule of sodium percarbonate ($C_2H_6Na_4O_{12}$ or $2Na_2CO_3 \cdot 3H_2O_2$) dissolved in water yields sodium carbonate and hydrogen peroxide creating an alkaline, oxidative environment. One question that is probably emerging for the reader regards the difference between sodium percarbonate and hydrogen peroxide. As illustrated in the formula, sodium carbonate “carries” hydrogen peroxide in the same way as a molecule carries a “water of hydration”. This is a big advantage in that it makes it less immediately reactive.

The direct oxidation of tetrachloroethene with sodium percarbonate would theoretically yield water and carbon dioxide as the standard oxidation end products per Equation 2-1.



RegenOx™, by using sodium percarbonate, can directly oxidize a wide range of contaminants including:

- Fuel hydrocarbons from gasoline through the higher molecular weight compounds;
- Aromatic hydrocarbons such as the benzene, toluene, ethylbenzene and xylene (BTEX) compounds and the heavier polyaromatic hydrocarbon (PAH) compounds;
- Gasoline oxygenates such as methyl tertiary butyl ether (MTBE) and their derivatives;
- Petrochemically derived reagents such as phenols, aldehydes and ketones;
- Chlorinated solvents with emphasis on the common chlorinated ethenes perchloroethene (PCE), trichloroethene (TCE), chlorinated ethanes such as trichloroethane (TCA) and dichloroethane (DCA), and chlorinated methanes such as carbon tetrachloride and chloroform).

2.1.2 Surface-Mediated Chemical Oxidation

This is a variant of direct oxidation involving catalytic complexes. The RegenOx™ system employs a complex which includes a proprietary catalytic surface that provides a unique surface (activator complex) for both the contaminant and the RegenOx™ oxidizer complex to interface. When the contaminant, oxidizer complex and activator complex come together, rapid contaminant oxidation occurs. Reactions can still take place without the catalytic surface via direct oxidation; however, surface-mediated oxidation is more efficient. The advantages of surface-mediated reactions include:

The RegenOx™ system employs a complex which includes a proprietary catalytic surface that provides a unique surface (activator complex) for both the contaminant and the RegenOx™ oxidizer complex to interface.

- Increased efficiency -- brings oxidant and contaminant together isolating the oxidation reaction from soil matrix effects
- Adjustable reaction rates -- accomplished by varying oxidant to activator ratios
- Positional longevity -- activator mobility in the subsurface can be adjusted by injection design

2.1.3 Free Radical Mediated Oxidation and Reduction

In order to completely oxidize (mineralize) contaminants to carbon dioxide and water, all chemical oxidants must either supply oxygen from the oxidant itself or from reactions involving water. In addition to the oxygen provided by its oxidant, RegenOx™ is capable of promoting the propagation reactions that yield a mixture of free radicals. A free radical is a highly reactive molecule having an unpaired electron. Free radicals are generated by the decomposition of peroxide in the presence of metal salts such as a ferrous salt.

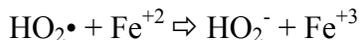
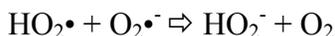
Examples of free radicals that are formed by RegenOx™ include:

Perhydroxyl radical HO₂· (oxyhydroxyl or protonated superoxide)

The perhydroxyl radical is a species formed by a base catalyzed free radical mechanism. In the RegenOx™ system, the perhydroxyl radical is one of the predominant radical intermediates formed.



In addition, the hydroperoxide anion HO₂⁻, the conjugate base of H₂O₂, will form. The hydroperoxide anion is a reductant.



Hydroxyl radical OH·

The reaction of ferrous iron and hydrogen peroxide generates hydroxyl radicals. The hydroxyl radical can react with almost any hydrocarbon or chlorinated hydrocarbon. However, because of the alkaline conditions promoted by the RegenOx™ catalyst hydroxyl radicals have only a minor role in the active mechanisms of this oxidative system.



Superoxide radical O₂⁻

The superoxide radical is also a reductant which can break down highly oxidized compounds such as carbon tetrachloride and chloroform.



2.2 Oxidation Potential

The oxidation potentials of chemical oxidants are often ranked in terms of their electropotential. The electropotential is the electromotive force in units of volts (V) based on half-cell reactions. Theoretically, larger values indicate a greater potential for the half reaction to proceed.

Relative electropotentials: (Source: ITRC 2005)

Hydroxyl Radical	2.8 V
Ozone (Gas)	2.1 V
Sodium Persulfate	2.0 V
Sodium Percarbonate	1.8 V
Hydrogen Peroxide	1.8 V
Permanganate	1.7 V
Superoxide Ion	-2.4 V

Oxidation potentials (half-cell reactions) for oxidants, however, do not tell the whole story. They rate oxidants only against hydrogen and do not account for the chemistry needed to provide the oxygen for the oxidation reactions, provide the cation for the chloride, account for all electrons transferred, and provide the needed components for completely balanced equations (the contaminant side of a half-cell). Further, oxidation potentials tell us nothing about the speed of reactions. To understand the complete picture, one must evaluate the oxygen content of the oxidant, the thermodynamics and kinetics of the reaction.

2.3 Relative Oxygen Equivalence (Active Oxygen)

Having more oxygen in the oxidizer does not necessarily mean more oxygen will be used. To better understand each oxidant's provision of oxygen to oxidize, we can gauge the relative weight fraction of oxygen in each oxidant that can contribute to chemical oxidation. This is also known as % active oxygen (A.O.) Using this metric we have:

Hydrogen Peroxide	47% A.O.
RegenOx™ Oxidizer Complex	15.3%
Potassium Permanganate	15.2%
Sodium Persulfate	6.7%

Thus on an Active Oxygen basis, RegenOx™ has 1/3 the electron equivalence of H₂O₂, approximately the same as permanganate, and over 100% more than sodium persulfate.

2.4 Thermodynamics

Thermodynamics tells us the likelihood or potential that a reaction will take place as well as to what extent the reversible reaction has proceeded when equilibrium is reached. Interpreting completely balanced equations in terms of the Gibb's Free Energy is a more valid approach for comparing reactions than that based on half-cell reactions alone. The Gibb's Free Energy (ΔG) is a measure of the amount of energy that is available from some process operating at constant pressure and is directly connected to voltage as expressed in Equation 2-2. The Gibb's Free Energy function is a convenient way to determine which way a reaction will go. If $\Delta G < 0$, that reaction will occur "spontaneously." In the context here "spontaneously" means that the process, given a pathway, occurs spontaneously; it says nothing about the rate at which the process might occur.

The voltage for the complete oxidation-reduction reaction (ε) is equivalent to the chemical change in Gibb's Free Energy (ΔG) divided by the number of electrons transferred (n) and a constant of nature termed Faraday's Constant (F).

$$\varepsilon = -\Delta G / nF \quad (2-2)$$

The lower the free energy (in other words, the more negative), the higher the voltage and the more likely the reaction will occur.

The following are some common oxidation reactions using PCE as the contaminant and the common range of commercial oxidants. With reference to Dialogue Box 1 (next page) we can see two things.

1. The peroxide mediated reactions are the strongest based on the most negative ΔG . The calculations show the energetics of peroxide under basic conditions, as is done with RegenOx, are more favorable than for permanganate and persulfate under their use conditions.
2. When treating chlorinated contaminants, chloride is a terminal product of the oxidation and we would prefer it not form a problematic chlorine species such as an oxide. By operating peroxide reactions under basic conditions, as is done with RegenOx, more benign chloride salts are formed. It is very important to note that not all reactions of chlorinated compounds lead to the formation of benign chlorine compounds. One example of problematic reactions with chlorinated compounds is as follows:

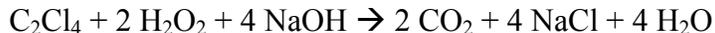
- Formation of ClO₂ from the Peroxidation of PCE under Acidic Conditions



Dialog Box 1

RegenOx™

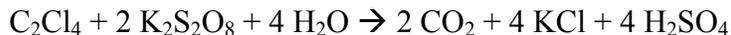
$$\Delta G = -338 \text{ kcal/mol}$$



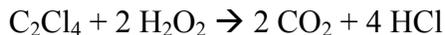
Potassium Permanganate: $\Delta G = -329 \text{ kcal/mol}$



Potassium Persulfate: $\Delta G = -271 \text{ kcal/mol}$



Hydrogen Peroxide: $\Delta G = -261 \text{ kcal/mol}$



The reader may note that the Energy of Activation is not considered in this discussion. The fact which is self-evident is that these reactions have been observed in practice, thus the required Energy of Activation is manifested.

2.5 Kinetics

Even if the reaction is thermodynamically favored, it is still governed by kinetics. In essence, thermodynamics addresses the probability of the reaction and kinetics tells us how fast the reaction will happen. If the reaction is fast, equilibrium calculations will predict the results of the reaction. If the reaction is not fast, then the only way to follow the course of the reaction is to measure the chemical composition as a function of time. (Robinson 1987).

The rate of reaction describes the destruction of the compound of interest over time as a function of the concentrations of the various species participating in the reaction. For chemical oxidation, the rate of reaction (with respect to the contaminant) for a contaminant A reacting with an oxidant B can be written as a function of both the concentrations of A and B with k as the rate constant, as per Equation:

$$-r_A = k (C_A / C_{A0}) * (C_B / C_{B0})$$

Where C_A is the final concentration of A and C_{A0} is the concentration of A at time = 0, and C_B is the final concentration of B and C_{B0} is the concentration of B at time = 0.

Now if the concentration of oxidant B is in large excess compared to the concentration of contaminant A such that the concentration of oxidant B does not change much during the course of the reaction, then $C_B = C_{B0}$. The above rate equation would then reduce to

$$-r_A = k (C_A / C_{A0})$$

After integration $C_A = C_{A0} e^{-kt}$. This equation would define a *pseudo-first order* reaction. A plot of the natural logarithm (ln) of C_A / C_{A0} versus time should yield a straight line.

Half-life is commonly used as a measure of rate for first-order reactions. Half-life is the time required for the concentration of contaminant to reduce in half.

Thus at time $t_{1/2}$ when $C_A = 1/2 C_{A0}$, then

$$t_{1/2} = \ln 2 / k = 0.693 / k \text{ (Levenspiel 1972)}$$

In the field the reaction rates will tend to be slower. However, practically speaking, the only way chemical oxidation is affordable is if the **rate** of the oxidation of the contaminant is faster than the rate of the interaction of the oxidant with the background oxidant demand of the aquifer.

In order to come up with an objective, scientifically-based comparison of the effectiveness of RegenOx™ with other oxidants, we compared the two properties of a chemical reaction that determines its effectiveness, thermodynamics and kinetics. The half-lives for several common contaminants treated with RegenOx™ and several other

oxidants were experimentally determined in a laboratory (Source: Applied Power Concepts of Anaheim, CA). We calculated the Gibb's Free Energies for the same combinations of oxidant and contaminant. We normalize ΔG_r to lowest ΔG_r of group (the lowest ΔG_r is most thermodynamically favorable reaction):

$$(\text{normalized } \Delta G_r) = (\Delta G_r \text{ lowest} / \Delta G_r \text{ oxidant})$$

We added the normalized ΔG_r to a weighted half-life value to derive a score for effectiveness:

$$\text{Score} = (1/3)(\text{normalized } \Delta G_r) + (2/3)(\text{Contaminant half-life})$$

Example Calculation Results 1:

PCE	ΔG_r	norm. ΔG_r	Half-life (hrs.)	Score	Grade
RegenOx	-338	1.00	1	1.0	A
Persulfate	-271	1.03	2.3	1.9	B
Permanganate	-329	1.24	0.9	1.0	A

Example Calculation Results 2:

Toluene	ΔG_r	norm. ΔG_r	Half-life (hrs.)	Score	Grade
RegenOx	-1416	1.06	0.8	0.9	A
Persulfate	-1505	1.00	1.25	1.2	B
Permanganate	-1056	1.43	7	5.1	D

Table 2-1 (on the following page) shows the results of these calculations. RegenOx™ was equal or superior to all the oxidants that were compared for all the contaminants that were considered.

Table 2-1: RegenOx™ Effectiveness Compared to Other Oxidants

Contaminant	RegenOx™	Fenton's Reagent	Permanganate	Persulfate	Activated Persulfate	Ozone
Petroleum Hydrocarbons	A	A	B	B	B	A
Benzene	A	A	D	B	B	A
MTBE	A	B	B	C	B	B
Phenols	A	A	B	C	B	A
Chlorinated Ethenes (PCE, TCE, DEC, VC)	A	A	A	B	A	A
Chlorinated Ethanes (TCA, DCA)	A	B	C	D	C	B
Polycyclic Aromatic Hydrocarbons (PAHs)	A	A	B	B	A	A
Explosives (RDX, HMX)	A	A	A	A	A	A

Based on laboratory kinetic data, thermodynamic calculations, and literature reports.

Oxidant Effectiveness Key:

A = Short half life, low free energy (most energetically favored), most complete

B = Intermediate half life, low free energy, intermediate degree of completion

C = Intermediate half life, intermediate free energy, low degree of completion

D = Long half life, high free energy (least favored), very low degree of completion

2.6 Longevity

The longevity of an oxidant after it is applied to the subsurface is important because it affects the radius of influence by affecting the distances the oxidant can travel in the subsurface and still be active. Increased longevity may be necessary to increase contaminant degradation that is limited by the desorption of contaminant from the soil matrix. Longevity varies as a function of a number of factors, including the concentration of oxidant used, the kinetics of the oxidant (including autocatalytic decomposition), temperature and pH of the aquifer, concentration of contaminants, and the composition and total oxidant demand of the groundwater and soils.

Laboratory studies of longevity have shown that RegenOx™ in water with or without soil, has been found to last weeks – or even months depending on how the catalytic complex is provided

Laboratory studies of longevity have shown that RegenOx™ in water with or without soil, has been found to last weeks – or even months depending on how the catalytic complex is provided. Field studies have corroborated this where RegenOx™ indicated activity in excess of 25 days as measured by the presence of hydrogen peroxide. By

comparison, Fenton's reagent using activated liquid hydrogen peroxide lasts seconds to days, persulfate lasts weeks to months, if not fully activated, and permanganate a much milder oxidant has been shown to persist several months to over a year.

It is also critical to note that longevity of organic free radicals and radical-producing compounds (like peroxyacids) generated by RegenOx™ is beyond 30 days, and that these species are capable of degrading various contaminants.

2.7 The Advantages of Alkaline Chemistry

RegenOx™ uses a *basic oxidizer complex* and thus generates alkaline conditions (high pH) and does not rely on operating under the acidic conditions (low pH) that are required when using standard catalyzed hydrogen peroxide (Fenton's chemistry). Fenton's reagent is typically conducted at low pH in order to maintain iron solubility; however, low pH may not be the most effective conditions for efficient peroxide consumption. This is because the production of perhydroxy and superoxide radicals is inhibited at acidic conditions.

The formation of radicals is very different at high pH. None of the conventional logic associated with acid catalyzed reactions (where the hydroxyl radical is key) applies to the base catalyzed reactions of peroxide. The radical that is predominantly generated on the base side is the perhydroxyl radical ($\text{HO}_2\cdot$). This is well established from detergent technology and is the reason why detergent manufacturers "bleach" at high pH. Reactions under acidic conditions create more of the undesirable "chloro" compounds (rather than benign chloride salts) when chlorine is present either in the oxidant or the substrate.

RegenOx™ uses a basic oxidizer complex and thus generates alkaline conditions (high pH) and does not rely on operating under the acidic conditions (low pH) that are required when using standard catalyzed hydrogen peroxide (Fenton's chemistry).

Under basic conditions carbonate scavenging is not a concern. In the solid state, the manner in which percarbonate "holds" hydrogen peroxide is by hydrogen bonding and crystal-packing forces. In solution, peroxide and carbonate dissociate and participate in many dynamic interactions including hydrogen bonding and acid-base equilibria. Although carbonate does react with hydroxyl radical to produce carbonate radical, this is one minor pathway in a group of many redox reactions taking place. It is important to note that carbonate radical is also an oxidant, albeit a mild one.

2.8 Heat/Gas Production

Elevating the temperature at which the oxidation reaction occurs both activates and decomposes an oxidant. The rate of hydrogen peroxide decomposition doubles with every 10 degrees C rise in temperature. Thus, highly exothermic treatments (such as with

the use of Fenton's reagents at high concentration) results in very short longevity of the oxidant and is often associated with high oxidant losses due to autocatalysis (the conversion of hydrogen peroxide to oxygen) (Vance, 2004). Thus less hydrogen peroxide is available for the desired oxidation reactions.

When high concentrations (greater than 15 %) of liquid hydrogen peroxide are used (as in a Fenton's chemistry application), the exothermic breakdown of the peroxide generates heat which further accelerates decomposition and oxygen gas that tends to volatilize contaminants from the soil and/or groundwater. This rapid decomposition reaction with the evolution of heat and oxygen has the potential to create an explosive condition if used for treatment of flammable or combustible compounds. (ITRC, 2005)

RegenOx™ uses a solid peroxide oxidizer complex and does not generate excessive heat or gas. RegenOx™ is inherently easier to apply and is safer to use than oxidation technologies that employ liquid hydrogen peroxide. Therefore, RegenOx does not significantly increase groundwater temperature (Figure 1).

RegenOx™ uses a solid peroxide oxidizer complex and does not generate excessive heat or gas.

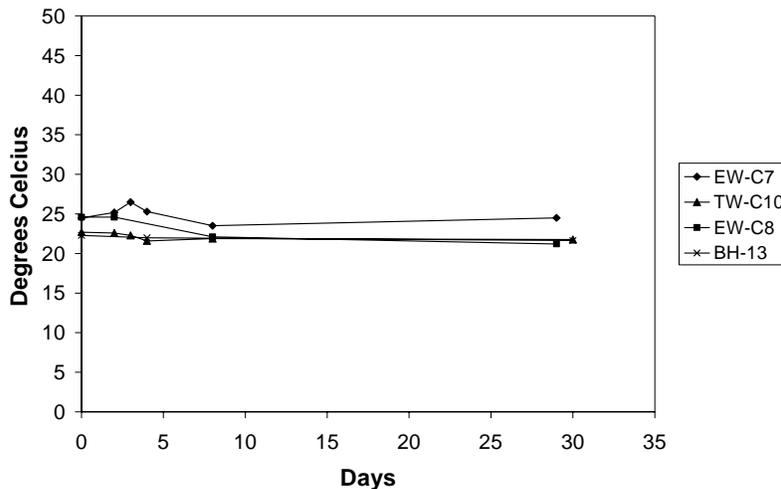


Figure 2-1: Monitoring Well Temperature profile after addition of 12% solution of RegenOx™

3.0 CONTAMINANT MINERALIZATION VS. CHEMICAL OXIDATION

3.1 Generation of Partially Oxidized Intermediates

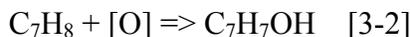
The chemical oxidation of contaminants in groundwater and soil is a process whereby the contaminant materials are converted into other chemicals with the addition of oxygen. The chemical reactions, in terms of the sequence of intermediate products involved, are similar to those involved in combustion (burning the chemicals in the presence of oxygen) or in aerobic bioremediation (biological oxidation). The time scale of chemical oxidation is between those two extremes of burning the chemicals in air which can occur in seconds or minutes and the biochemical oxidation reactions of bacteria which can take weeks or even months.

Like combustion and bioremediation the contaminants go through a series of reactions starting with the first step of changing the contaminant into a first “daughter product”. This daughter product is then further oxidized and the sequence continues with the potential of several side pathways until the ultimate state of complete oxidation occurs. In this final state we have only products of water (from hydrogen), carbon dioxide (from carbon) and comparable oxides or ionic species from other elements such as nitrogen, chlorine and sulfur when the contaminants contain these other elements.

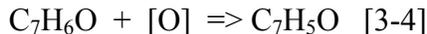
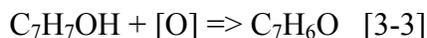
To use a simple example consider the oxidation of the chemical toluene, one of the BTEX components. Complete or total oxidation would be written:



Therefore, it takes 18 oxygen atoms for each toluene molecule to completely oxidize toluene. This complete oxidation is sometimes referred to as “mineralization” since carbon dioxide is an inorganic material. The sequence of reactions to get from toluene to complete oxidation goes through a series that has been documented in the literature. The first step in the chain of reactions for a RegenOx™ type of oxidation is conversion of toluene to benzyl alcohol:



The next step converts the benzyl alcohol to benzaldehyde which is then quickly converted to benzoic acid in the third step.



As illustrated in Figure 3-1:

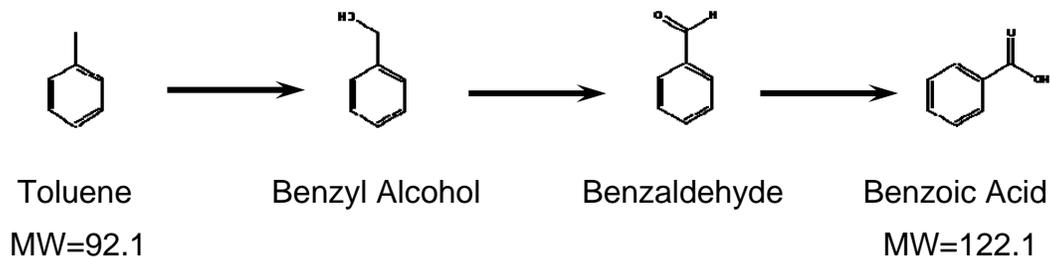


Figure 3-1: RegenOx™ Oxidation Pathway for Toluene

However, the sequence of reactions to get from pentachlorophenol to complete oxidation goes may go through a series that includes chloranil, which is a suspected carcinogen (Figure 3-2):

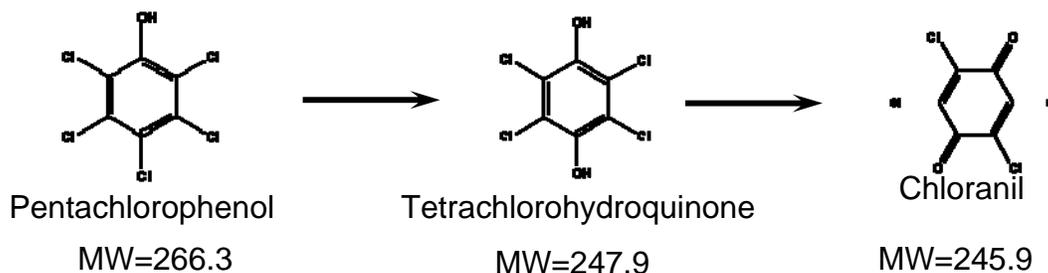


Figure 3-2: Potential Oxidation Pathway for Pentachlorophenol

This series continues until the reaction is completed or until one runs out of oxidant either by dilution or due to other reactions. Rarely are oxidations complete. As with internal combustion engines, there are always some residual unoxidized material such as carbon monoxide and some volatile organic compounds (VOCs).

In site remediation it is critical to note that we are assisted by the fact that microbes in the aquifer can assimilate partially oxidized by-products. In fact, the oxidation by-products are likely to be much more biodegradable than the contaminants.

3.2 Partially Oxidized Products are Readily Biodegradable

In site remediation it is critical to note that we are assisted by the fact that microbes in the aquifer can assimilate partially oxidized by-products. In fact, the oxidation by-products are likely to be much more biodegradable than the contaminants. For example, benzoic acid from toluene is much more water soluble and degradable than the toluene parent compound. While this may mean they are more readily transported, that is not necessarily bad as they can move into water with more available electron acceptors.. Also, most of these compounds are not regulated. In the case cited, benzoic acid and derivatives are widely used in human food and personal care products.

In considering how much chemical oxidant is required to adequately treat a contaminated site, the ultimate objective of the remediation has to be considered. For example, highly contaminated sites will require multiple injections of oxidant. In very contaminated source areas it may be unrealistic or cost prohibitive to add enough oxidant to provide the oxygen required for total mineralization. In these cases, applying a lesser amount of oxidant that leads to a more readily degraded by-product that can be metabolized by microbes in the subsurface may be a very successful and cost effective strategy. As will be covered next, the RegenOx™ system was designed to work “seamlessly” with the subsequent bioremediation. By this we mean that the conventional mechanisms that may inhibit a smooth transition to bioremediation are minimized such as temperature and the presence of inorganic species that can be inhibitory to reductive dechlorination. Further detail on this can be found in Section 4.

The chemical literature provides vast amounts of information on the nature of oxidation reactions and the sequence of reactions. For example, the initial products of benzene are aromatic phenols such as catechol. The catechol is therefore naturally produced as part of the aerobic biodegradation of benzene and these compounds facilitate subsequent biological activity as an energy substrate even if they are not totally removed by the initial chemical oxidation.

Likewise, the chlorinated solvents have been found to produce oxidation products that are similar to those found in bioremediation. For example, in PCE and TCE remediation, under reductive conditions, one expects to see DCE and VC – as well as compounds such as chloral and chloroacetic acid that are produced under more deeply methanogenic conditions. While these products can be quite toxic to humans, they have been shown to be readily biodegradable once they are produced. They are also produced under conditions of high energy chemical oxidation and likewise are readily biodegradable.

This section illustrates that there is a series of partially oxidized intermediates that can potentially be formed from some key target contaminants. It is very important to realize however, that we cannot make a blanket statement for the benign or biodegradable nature of intermediates. What we can say is that in the area of the most common contaminants – the most ubiquitous petroleum hydrocarbons and chlorinated solvents - we seem to have a reasonable understanding of the by-products such that ordinary concerns are abated. Further to this point, we must recognize that these intermediates have the potential to

form under natural attenuation conditions and that it may be advantageous to make the conversions in a controlled area and process them through the system relying on biological mechanisms.

Others have addressed this issue at the regulatory level as well. The Interstate Technology Regulatory Council (ITRC) in its most recent treatment of chemical oxidation (ITRC 2005) offers this guidance in several different sections of the document

“In almost all cases, the intermediates that are produced in these reactions are more biodegradable when compared to the parent compound.”

“Measurement of the anaerobic microbial benefits of ISCO focuses on the post-oxidative effects of enhancing biological reductive dechlorination (e.g., halo-respiration) of the chemical contaminant of concern. In many cases this post-oxidative effect acts as a “polishing” step to help bring contaminants below risk-based concentrations. The aquifer commonly reverts to pre-injection conditions within six months after

the oxidant is consumed, which in many cases is an anoxic environment. The reduction of contaminant levels and the production of intermediates more biodegradable can enhance anaerobic degradation in the post-oxidation environment.”

“The remediation of groundwater contamination using ISCO involves injecting oxidants and potentially co-amendments directly into the source zone and downgradient plume. The oxidant chemicals react with the contaminants, producing innocuous substances such

The good news is that intermediates produced are manageable with subsequent enhanced bioremediation. The combination of chemical oxidation treatments followed by the injection of slow release substrates for the stimulation of bioremediation is a practice that makes both technical and economic sense.

as carbon dioxide, water, and—in the case of chlorinated compounds—inorganic chloride. However, there may be many chemical reaction steps required to reach those end points, and some reaction intermediates, as in the case of polyaromatic hydrocarbons and organic pesticides, are not fully identified at this time. Fortunately, in most cases if an adequate oxidant dose is applied, the reactions proceed to completion, and the end products are reached quickly.”

There are two main advantages of using chemical oxidation over other conventional treatment technologies: large volumes of waste material are not usually generated, and treatment is commonly implemented over a much shorter time frame. Both of these advantages often result in savings on material, monitoring, and maintenance.”

Others have addressed this issue at the regulatory level as well. The Interstate Technology Regulatory Council (ITRC) in its most recent treatment of chemical oxidation (ITRC 2005) offers this guidance in several different sections of the document...

In summary, the formation of a series of partially oxidized intermediates following chemical oxidation is to be expected. Complete chemical oxidation of the compounds of concern, especially in a complex aquifer, is not an expected result under normal and economically reasonable circumstances. Furthermore, the variation in what is produced can be a function of competing reactions within the aquifer, specific aquifer geochemistry and other physical and organic features.

The good news is that intermediates produced are manageable with subsequent enhanced bioremediation. The combination of chemical oxidation treatments followed by the injection of slow release substrates for the stimulation of bioremediation is a practice that makes both technical and economic sense.

3.3 Intermediates as Performance Indicators

Lastly on the topic of intermediates, it should be noted that these compounds can be used as “tracking indicators” to follow the success of a remediation project employing chemical oxidation. In essence we are saying that if a source area is treated and experiences contaminant concentrations rebounding, the intermediates are a sign that mass was in fact removed – a fact that would otherwise be hidden by dissolution, desorption or an influx of new mass.

4.0 Combining Chemical Oxidation with Bioremediation

In the previous sections we have established that for most contaminated sites multiple chemical oxidation applications will be required. While RegenOx™ has specific advantages over other available chemical oxidation technologies, one should still expect to apply multiple injections of the product in order to achieve significant mass reductions of contaminant in the subsurface (as is the case with all oxidants). As discussed in the previous section, complete and instant chemical oxidation of organic contaminants simply does not occur within the complex environment of the contaminated subsurface.

Therefore, chemical oxidation is a sequential process taking the parent target contaminant through a series of partially oxidized intermediate daughter products on the path to complete mineralization. Also discussed in the previous section is the fact that the oxidized intermediates formed are generally more biodegradable than the parent. Based upon these facts, one can conclude that a logical strategy to achieve low contaminant concentrations on project sites with high contaminant mass would be the use of chemical oxidation technology to achieve initial mass reduction, followed by longer term stimulation of *in situ* bioremediation.

A logical strategy to achieve low contaminant concentrations on project sites with high contaminant mass would be the use of chemical oxidation technology to achieve initial mass reduction, followed by longer term stimulation of in situ bioremediation.

4.1 Indigenous Microbes Survive Chemical Oxidation

It was thought by many that microbes indigenous to the subsurface would simply be wiped out by the application of harsh chemical oxidants. Today, this notion is now widely disregarded as an increasing amount of research and field experience has indicated the contrary.

Over the past decade in which chemical oxidation technology has been applied there has been much debate over the topic of subsurface sterilization. It was thought by many that microbes indigenous to the subsurface would simply be wiped out by the application of harsh chemical oxidants. Today, this notion is now widely disregarded as an increasing amount of research and field experience has indicated the contrary. The ability for natural microbes to rapidly re-colonize the subsurface after chemical oxidation treatment is well documented in the literature (Azadpour-Keeley et al., 2004, Buyuksonmez et al., 1999 DeHghi et al, 2001, Miller et al. 1996). A full list of citations, separated by topic, can be found in the References.

Dr. Robert Norris, a widely respected peroxygen scientist and groundwater remediation expert provided a useful and timely summary of the current industry perception on the viability of indigenous microbes following chemical oxidation. He stated, “Following *in situ* chemical oxidation, microorganisms in the treatment area may suffer but eventually will recover in periods measured in months. Down-gradient reductive dechlorination is enhanced by the increase of electron donors generated from the native organics. Aerobic degradation appears not to be hurt, but increased oxidation potentials seem to be temporary and there is potential competition for electron acceptors from the newly formed soluble organic matter. The above seems to be true for ozone, permanganate and persulfate. Fenton’s reagent using acidic conditions and lots of peroxide (temperature will play a part) may be more damaging. To me it seems that peroxide systems using lower temperatures and more neutral pHs will act more like the other oxidants”. In this statement he is referring to the RegenOx™ oxidizer complex that is a more benign conveyor of hydrogen peroxide and basic chemistry.

Today there is little doubt that indigenous microbial flora present prior to a chemical oxidation application will indeed rapidly re-colonize the treated area and will flourish in the presence of the right conditions.

Today there is little doubt that indigenous microbial flora present prior to a chemical oxidation application will indeed rapidly re-colonize the treated area and will flourish in the presence of the right conditions.

4.2 RegenOx is Designed to Transition to Bioremediation

In designing a chemical oxidation technology Regenesis sought to maximize not only the chemical oxidation potential of the product, but also to ensure maximum compatibility with in situ bioremediation.

In designing a chemical oxidation technology Regenesis sought to maximize not only the chemical oxidation potential of the product, but also to ensure maximum compatibility with in situ bioremediation. When developing the product, a main objective was to employ an oxidant within the formulation that would not negatively interfere with bioremediation processes that would occur after the oxidation was complete. Between the use of simple sodium percarbonate and the design of the Regenesis

two-part catalyzed activator complex technology, we have achieved this objective.

At present, with other chemical oxidation technologies, one risks leaving behind detrimental residuals such as manganese from permanganate or high levels of sulfate from persulfate applications. These compounds can interfere with reductive dechlorination by poisoning the redox reactions of the system in either manganese or sulfate reducing conditions at the expense of reductive dechlorination. Further, some minerals like manganese or hydrogen sulfide have been reported to be bacteriostatic and mutagenic which raise post-treatment water quality issues.

The RegenOx™ system leaves behind very little residue, limited primarily to the innocuous carbonate and bicarbonate ions. These residuals do not have a negative effect or interfere with efficient natural attenuation or enhanced bioremediation and do not detrimentally impact the quality of the groundwater treated.

Figure 4-1 presents results of a study performed on the biodiversity of an environmental sample subjected to treatment by RegenOx. The biomass concentrations and microbial diversity was determined by Microbial Insights, Inc (www.microbe.com) before and after a RegenOx treatment. Biomass, as measured by phospholipid fatty acid analysis (PLFA), did not significantly change after treatment or rebounded rapidly. A more detailed look at the microbial community structure showed several things. The eukaryotes declined. The supposition is that the eukaryotes – whether unicellular or multi-cellular – are more complex and therefore more susceptible to oxidative stress. We also see a modest increase in fermentative organisms which also makes sense as the chemical oxidants make organic material more available and “pre-digested”. Then finally, if we have an increase in fermentative by-products such as hydrogen, the increase in some of the anaerobes makes sense as well. While much of this analysis is conjecture, it is clear that the microbial community present in the sample subjected to RegenOx was not radically harmed.

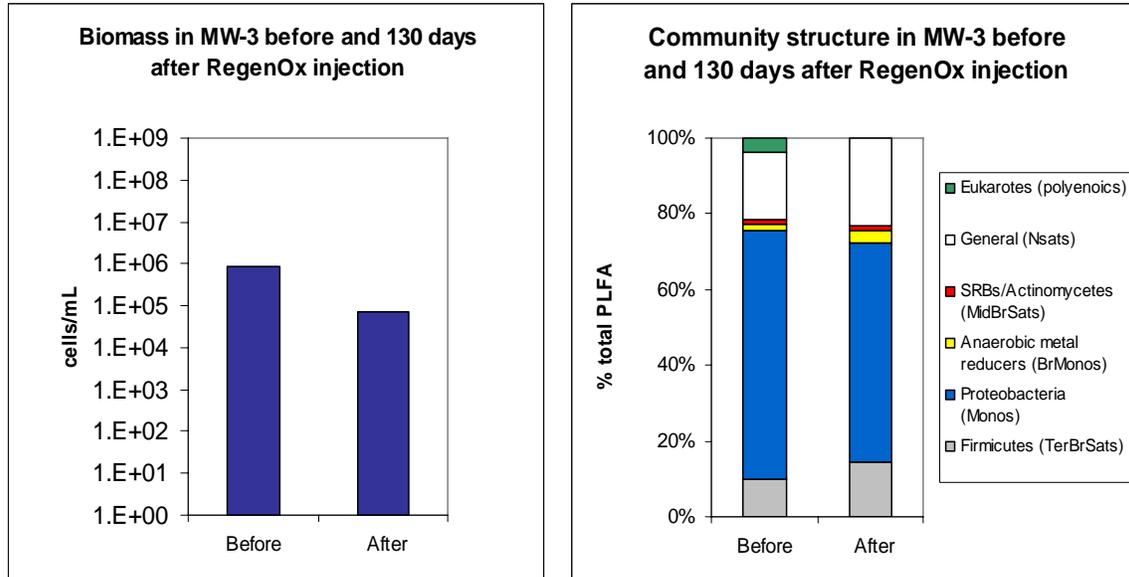


Figure 4-1: The Effect of RegenOx™ on Biomass and Microbial Diversity

5.0 ESTABLISHING RATIONAL EXPECTATIONS FOR CHEMICAL OXIDATION

It often bears repeating that chemical oxidation should not be viewed as a “silver bullet”. As with other remediation technologies, one hears of the failures of chemical oxidation as often as the successes. In order to increase the odds for success, it is imperative to understand the applicability of chemical oxidation.

The first step in deciding whether or not to use chemical oxidation as a remediation technology is to have a clear definition of the overall objective of the treatment.

5.1 Defining the Objective and Goals of the Remediation Plan

The first step in deciding whether or not to use chemical oxidation as a remediation technology is to have a clear definition of the overall objective of the treatment. Accompanying the objective should be a clear goal(s) that can be measured in order to determine if the objective has been met. Often the objective and goal(s) are established by the regulator, the responsible party, and/or the consultant; however, it is surprising the number of sites where the objective and goal(s) have not been laid out prior to selecting the remediation technology. If the goals have not been clearly articulated, then expectations for the technology and the definition of “success” may differ between the parties.

Let's say the remedial objective at a hypothetical chemical oxidation project site is to "reduce contamination on the site so that the regulator can close the docket prior to land transfer". All concerned parties may have agreed to this objective, however, no one established and agreed upon written measurable goals to determine whether the objective had been met. Nor under this scenario is there any agreed upon methodology to judge the performance of chemical oxidation.

Continuing with our hypothetical project, let's say that over the course of six months, four injections of a chemical oxidant had reduced the mass of contamination by 90%. The consulting engineering firm viewed this as a success because their expectation was that the use of chemical oxidation would only reduce mass by 50% within a year. The property owner, however, viewed the use of chemical oxidation as a failure because he had expected one injection of the chemical oxidant to reduce the contaminants of concern to maximum concentration limits (MCLs) within two months time so as to allow for unrestricted use.

Thus one can see from this hypothetical scenario the need for all parties to agree beforehand on specific remediation goals. If the goal in this example was to meet MCLs in all site monitoring wells within 18 to 24 months, then a "successful" remediation plan may have included chemical oxidation to reduce contaminant mass by 70% in the first six months followed by bioremediation to meet MCLs over the course of the following year.

The objectives and goals of a particular project have to realistically balance the performance criteria with the time constraints. Drinking water quality standards such as MCLs simply cannot be achieved in a short period of time by current remedial technologies including chemical oxidation. It has to be realized that either the time constraint has to be lifted or the performance goals have to be less stringent.

So before evaluating the use of chemical oxidation (or any remediation technology), the following questions should be addressed:

1) What are the objective and goal(s) of the remediation plan?

2) What is the expectation of chemical oxidation within this remediation plan?

3) How will the performance of chemical oxidation be measured?

So before evaluating the use of chemical oxidation (or any remediation technology), the following questions should be addressed:

- 1) What are the objective and goal(s) of the remediation plan?
- 2) What is the expectation of chemical oxidation within this remediation plan?
- 3) How will the performance of chemical oxidation be measured?

Chemical oxidation is a useful remediation tool for removing contaminant mass and should be viewed in that light. Chemical oxidation can be used as the first or second step in a treatment-train approach to site cleanup. However, by itself, chemical oxidation may

not be the most cost-effective solution to meeting MCL concentrations in the groundwater. Chemical oxidation's role in the remediation strategy is bounded by its technical limitations and the life-cycle cost. A life-cycle cost analysis of the remediation strategy should be performed whereby input parameters are selected that can be monitored for the purpose of deciding when to switch to the next treatment component of the remediation plan (e.g., bioremediation).

5.2 Contaminant Distribution in the Subsurface

As a basis for understanding how to best apply chemical oxidation to a site cleanup, it is worthwhile reviewing how contamination is distributed across a given contaminated project site after the initial contaminant release.

5.2.1 Non-Aqueous Phase Liquids

There has been much written on non-aqueous phase liquid (NAPL) and source remediation. The National Research Council recently issued the report *Contaminants in the Subsurface: Source Zone Assessment and Remediation* (NRC 2004). Other recent reports include *An Illustrated Handbook of DNAPL Transport and Fate in the Subsurface* (UK EA 2003) and *The DNAPL Remediation Challenge: Is There a Case for Source Depletion?* (US EPA 2003).

The reader is directed towards these reports and others (ITRC 2002, US EPA 1998) for a broader discussion on the subject. The reports point out that often the site characterization, remedial technology selection, and metrics used to measure success are misaligned.

5.2.1.1 NAPL Movement and Distribution

In the case of NAPLs, "they flow (downward) through a vadose zone under the influence of gravity, until they encounter the capillary fringe. Since the water table typically rises and falls due to seasonal changes or precipitation events, the hydrocarbons become "smeared" across the capillary fringe and the water table. Much of this mass is occluded in interstitial and pore spaces as small droplets of NAPL, which can only be removed by dissolution in groundwater under normal conditions. This is a very slow process, and is limited by the constituents' solubility, its diffusivity in water, and the velocity of groundwater movement. The amount of occluded NAPL is affected directly by the distribution of pore and particle sizes within the soil.

"A portion of the hydrocarbons that come out of the solution below the water table will partition (sorption to soil) to natural organic carbon (expressed as total organic carbon). This can add to the depth of the "smear" zone, not uncommonly creating a zone eight to ten feet in thickness where most of the hydrocarbon is present, whether as small droplets of NAPL or sorbed to the soil. The amount of hydrocarbon actually dissolved in the groundwater is usually less than a few percent of the total hydrocarbon mass. Any

process which solely treats the groundwater is thus required to wait for sorbed material or NAPL to dissolve.” (US ACE 1997)

Likewise, “Dense non-aqueous phase liquid (DNAPL) can form pools in the subsurface, or they can exist as small globules or ganglia retained within the aquifer pores. Among the many distinguishing features of DNAPL sites is the fact that the distribution of DNAPL in the subsurface is typically sparse and highly heterogeneous. Once the contaminants are in the subsurface, processes such as dissolution, sorption, and biodegradation work to further affect contaminant distribution by redistributing mass locally among phases as well as carrying the contaminant away from the site of initial release. Depending on the hydrogeologic setting, a portion of the contaminant mass released to the subsurface as a DNAPL may diffuse into stagnant zones as either sorbed or dissolved-phase contamination.” NRC, 2004.

5.2.1.2 Free Phase Product Mass

It also imperative to have an understanding of the mass of free-phase NAPL that is present on site. In the case of light non-aqueous phase liquid (LNAPL), the thickness of the product is measured, but that measurement is typically not translated to the actual thickness or volume of LNAPL in the aquifer. When compared to the actual thickness in the aquifer, a 3-inch thickness of product measured in a monitoring well screened in clay is much more exaggerated than the same thickness measured in a well screened across sand. The relationship between the LNAPL thickness in a well and the volume of LNAPL in the aquifer is complex. American Petroleum Institute offers guidance on these type of calculation. See their website <http://api-ep.api.org/filelibrary/ACFE0.pdf> and *Free-Product Recovery of Petroleum Hydrocarbon Liquids* (Charbeneau 2000a,b).

The presence of free phase DNAPL is generally much less common. Historically, well gauging equipment has been used for measuring DNAPL thickness. More recently however, newer methods have been introduced. Publications such as EPA’s *Site Characterization Technologies for DNAPL Investigations*. US EPA 2004 and ITRC’s *Strategies for Monitoring the Performance of DNAPL Source Zone Remedies* (ITRC, 2004) describe DNAPL characterization techniques using such emerging tools such as Membrane Interface Probe (MIP) and Optical Spectroscopy. Other techniques such as Induced Polarization have also been used to characterize DNAPL in fractures within bedrock.

5.2.1.3 Sorbed Mass

Groundwater has a higher affinity than NAPL for soil therefore interfacial tension tends to hold the NAPL within the pores. According to API, “water and LNAPL coexist in the pores under different pressures. The difference in pressure between the LNAPL (non-wetting phase) and water (wetting phase) is defined as capillary pressure. The greater the pressure in the non-wetting (e.g., LNAPL) the more fully the pore space is filled (saturated) by the non-wetting phase” API, 2003. Quite often the NAPL occupies only a small percent of the available pore space yet still provides a source for contaminants in the dissolved plume.

Similarly, DNAPL is generally the non-wetting phase in most saturated soils. (In the vadose zone, the DNAPL is more often the wetting phase.) Capillary barriers such as the water table and thin silt and clay lenses retard the migration of the DNAPL.

Estimating Sorbed Contaminant Mass Requires Soil Samples

The US Army Corp of Engineers Engineer Manual referenced earlier again offers that, “recognizing how the NAPL, both dissolved and sorbed, are distributed in the subsurface and how they can potentially be affected by the remedial technology are prerequisites to identifying the data collection needs. For most soil strata impacted by hydrocarbons, the majority of the hydrocarbon mass is sorbed to the soil particles or resides as NAPL within interstitial spaces. Soil concentrations provide the most useful assessment of how much material will actually require removal or degradation.” This points directly to the need for sampling soils in the area of known or suspected NAPL so as to gain an estimate of the amount of contaminant bound to the soils. Simply sampling groundwater samples will grossly underestimate the contaminant mass to be treated.

5.3 Developing a Remediation Program

On most project sites with impacted groundwater, it is groundwater regulatory standards that drive the cleanup. This can be at the point of compliance or site wide. Since these regulatory standards are based on the concentration of contaminants in the groundwater, the site characterization and monitoring is focused on the mass in the dissolved phase. Thus, the overall objective set for a remediation plan is ultimately tied to reducing the concentration of contaminants in water.

The remediation plan can however be composed of a sequence of treatment technologies (a “treatment train”) designed to meet this objective, but with individual goals for each phase or technology employed in the cleanup.

For example, consider a site with free-phase LNAPL.

Hypothetical Site Conceptual Remediation Strategy

First phase	Remove the volume of free-phase LNAPL
Second phase	Reduce the residual sorbed mass and high concentrations of dissolved phase
Third phase	Reduce the dissolved-phase concentrations to MCLs

Each of these sequences would have goals established and realistic timeframes within which to reach these goals.

Now how does chemical oxidation fit into all of this discussion? At this hypothetical site, it would be unrealistic to expect chemical oxidation to take the site from free-phase LNAPL to MCLs. In fact chemical oxidation is probably not a cost-effective selection

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for the first (also can be hazardous) or third treatment. However, chemical oxidation would be an excellent technology candidate for the second phase, reducing residual mass.

5.3.1 Treatment of Free Phase NAPL

It is generally more cost-effective to remove the free-phase NAPL first by other means prior to the use of chemical oxidation. The quantity of oxidant required to oxidize masses of recoverable free-phase NAPL will typically rule chemical oxidation as too expensive. In addition, there is a common misconception that chemical oxidation can be used to treat free-phase NAPL and “burn off” masses of contamination sorbed to the soils.

Chemical oxidants are not miscible in LNAPL or DNAPL so the contaminant oxidation occurs only in the aqueous phase, involving dissolved species of both the contaminant and the oxidant. Therefore the solubility of the contaminant ultimately controls the rate of possible oxidation. The rate of mass removal is limited by the kinetics of the contaminant dissolution process rather than those of the chemical oxidation reaction (Vance, 2004).

5.3.2 Treatment of Residual/Sorbed NAPL

After the bulk of the free-phase NAPL has been removed, chemical oxidation makes sense as the second phase of treatment -to reduce the mass of residual NAPL. NAPL components are oxidized only as they dissolve into the aqueous phase with the first step generating more soluble oxidative intermediates. By mass action, contaminants are driven to the aqueous phase and oxidations at the water/NAPL interface proceed much faster and further. “Rebound” of contaminant concentrations within the groundwater is to be expected as the contaminant desorption proceeds between chemical oxidant injections. Again, this rebound is due to the desorption of contaminants from residual NAPL bound within the subsurface. If the contaminant binds tightly to the soil, then the rate of desorption can make the rate of dissolved phase reaction appear as though the oxidant-contaminant reaction is slow, when in fact the kinetics for this aqueous-phase reaction are quite high. This is due to the fact that the residual contaminant sorbed to the subsurface is serving as a reservoir for the release of dissolve phase. When this release occurs, it can manifest itself as “rebound”.

When the oxidant has been depleted, the dissolved phase contaminant concentrations may rebound to concentrations greater than were present initially. This phenomenon is due to the fact that the chemical oxidation process can often reduce the fraction of organic carbon bound to the mineral content of the soils, thereby reducing the adsorption capacity.

In addition, the elevation of pH can affect the solubility and chemical behavior of the contaminant. The end result of these phenomena is that a greater partitioning of contaminant in the aqueous phase is occurring after the treatment than before. This is a

very positive result in that the chemical oxidation application has induced significant amounts of sorbed mass to move into the aqueous phase where oxidation can proceed.

Rebound is to be expected after an application of any chemical oxidation technology. The verification that mass has been reduced is found by taking a significant number of soil samples or using advance techniques, like Membrane Interphase Probes (MIPs), to map the subsurface concentration of contaminants. Monitoring the concentrations in the groundwater alone speaks only to the aqueous phase, ignoring the soil bound and generally greatest mass of contaminant.

After successive chemical oxidation treatments of the saturated subsurface, when the rate of removal starts looking asymptotic, there becomes a point of diminishing returns where chemical oxidation no longer makes economic sense. As the mass of contamination is removed from the soils, the rate of overall mass transfer gets slower and slower to a point where the oxidant is being depleted by competing reactions in the absence of immediately available target contaminants. This point is generally well above low concentration standards such as MCLs. If, on a given project, the remediation objective is to attain low dissolved phase contaminant concentrations, then the goal of using chemical oxidation should be limited to rapidly removing contaminant mass down to a point where bioremediation can take over.

5.3.3 Treatment to Low Dissolved Phase Concentrations

The third phase of the hypothetical treatment train would be enhanced or accelerated bioremediation. Following the application of chemical oxidation, the subsurface will contain lower concentrations of original contaminants lower mass, less on soils, but not necessarily less in water, partially oxidized intermediates, and other organics generated from the soils themselves. A proven, effective, and low cost approach to treating these constituents is the use of a passive, slow release compounds to stimulate their in situ biodegradation. Regenesi's slow-release compounds such as ORC-Advanced or HRC, as appropriate, can stimulate microbial populations in the subsurface environment to degrade contaminants and intermediates down to low concentrations.

In fact, bioremediation is very effective at mineralizing the intermediates formed during the oxidation of otherwise recalcitrant compounds as discussed in Section 3. Because of its sustainability, the use of bioremediation can be the final cost-effective stage in achieving the overall objective of a groundwater restoration project. Regenesi can help you with the life-cycle cost analysis of your remediation strategy by making the determination as to when it is both technically- and economically-favorable to switch from chemical oxidation to bioremediation (or in some cases even start overlapping chemical oxidation and bioremediation).

5.4 Other Factors in Determining the Applicability of In Situ Chemical Oxidation

In addition to the concentration and distribution of contamination, there are other factors to consider when determining if chemical oxidation is applicable to your site conditions. These factors include the types of contaminants to be treated, the type of lithology and the lithology in which the contaminants are distributed, the time frame over which remediation will take place, and the surface/subsurface structures and impediments on the property.

5.4.1 Types of Contaminants to be Treated

The previous Section discussed the range of contaminants that RegenOx™ can treat. Regeneration is currently gathering information on other contaminants of concern. Please contact Regeneration's Technical Services department for questions concerning contaminants not discussed here.

5.4.2 Soil Types/Lithology

The soil type and lithology of the subsurface will impact the effectiveness of chemical oxidation. The type of soil (sand, silt, clay, gravel) will largely determine the amount of water that the soil can hold (pore space volume) and the velocity thru which the groundwater can travel through the soil (permeability). Mass transfer of contaminant and oxidant in high permeability soils (e.g. sand) is dictated by dispersion/advection. Mass transfer of contaminant and oxidant in low permeability soils (clay) is dictated by diffusion. The length of time and plausibility that the oxidant will come in contact with the contaminant will be governed by the lithology. The oxidant will travel thru sandy lenses quicker than clay lenses. Fractures provide preferential pathways that bypass pockets of contamination.

Clays and silts tend to bind contaminants to their surface tighter than sands. If this is not considered in the delivery design across heterogeneous lenses, the chemical oxidant will circumvent the low permeable clay and silt lenses in favor of the higher permeable sands. The oxidant will not make contact with the residual NAPL and the treatment will fail. If the lenses are well characterized then the injection of the oxidant can be directly targeted to the tighter soils by use of special injection tools. However, it should be recognized that it is difficult to obtain adequate distribution of oxidant in clays without applying the oxidant in closely spaced, multiple injection points.

In addition, some aquifers and soils will have greater competing background or natural oxidant demand than others. Generally speaking the longer it takes the chemical oxidant to travel through the soil, the greater the oxidant will be consumed by competing demands. Furthermore, the tighter soils tend to have higher native organic content with which the oxidant might react.

The special considerations given to fractured sedimentary rock and fractured clay such as saprolite are discussed later in this manual. The outcome is a function of how well the fractured areas containing sources can be identified and then how well those fractures are targeted. Channeling will occur through higher permeable fractures at the expense of lower permeable fractures.

5.4.3 Treatment Time-Frame

Realistic expectations need to be established for any remediation project. As stated before, when applying chemical oxidation technologies, more than one injection will usually be required. The cycling of injections will be driven by the rate of oxidation and the rate of desorption/diffusion.

Any perspective on time should consider that the degradation half-life is the same from 10 ppm to 5 ppm as it is from 100 ppm to 50 ppm. Often there is a misconception that a chemical oxidation treatment did not work as well at the lower concentrations, when in fact the rates were the same. Also, in dealing with lower concentration there tends to be “noise in the data” and as part of this there are limitations in accuracy for the analytic techniques. An extended time period may be necessary to determine the trends in the data at the lower concentrations.

5.4.4 Site Structures/Impediments

Site infrastructure such as building and utilities need to be identified and evaluated when evaluating chemical oxidation. Utility corridors may serve as preferential pathways for oxidant delivery if not properly planned for. Safety considerations must be addressed when injecting oxidants under and around buildings and other structures particularly when treating shallow contamination. A geotechnical evaluation may be warranted prior to injecting large volumes of solution directly underneath footings and foundations. Obviously, surface structures may also limit the feasibility of reaching all of the contamination, depending on the method of delivery chosen and hence the success of the project.

The alkaline chemistry of RegenOx™ is more chemically compatible with typical site infrastructure than most other chemical oxidants. As mention previously, Fenton’s type chemistry and activated persulfate typical require acidic conditions that can be very corrosive. This is the main reason that Fenton’s type remediation is not recommended near tanks or pumping islands of commercial gasoline stations.

6.0 DESIGN CRITERIA FOR A CHEMICAL OXIDATION PROJECT

The basis for any design of chemical oxidation project can be reduced down to three principal factors (Dahmani 2004):

- Oxidant Selection
- Oxidant Loading
- Oxidant Delivery

Now let's evaluate RegenOx™ using the above ideal selection criteria.

6.1 Oxidant Selection

6.1.1 Rapid oxidation of target compounds

RegenOx™ activator provides for a proprietary micro-scale catalytic surface upon which the efficiency of the direct oxidation reactions is increased by 10- to 30-fold over that of percarbonate alone.

Unlike oxidants that can work only by direct oxidation (e.g. permanganates) RegenOx™ also generates free radicals and therefore has the energy to break saturated bonds (single bonds between carbon atoms as found in many hydrocarbons) in addition to unsaturated bonds (double bonds as found in chlorinated ethenes).

6.1.2 Production of Intermediates of Oxidation

As discussed in Section 3.0, all chemical oxidation reactions generate partially oxidized intermediate compounds. This is simply part of the oxidation process and is common to all chemical oxidation technologies available.

However, the intermediates produced are manageable with subsequent enhanced bioremediation. The combination of chemical oxidation treatments followed by the injection of slow release substrates for the stimulation of bioremediation is a practice that is both technically feasible and cost effective.

6.1.3 Toxicity of Oxidant and Oxidation Products in Groundwater and Soil

RegenOx™ will have minimal impact to water quality. The reagents injected into the subsurface and the post treatment residuals of these reagents are considered innocuous to the environment. Unlike permanganate and persulfate, RegenOx™ does not add

compounds that will potentially have an adverse impact to water quality and bioremediation. Secondary drinking water standards exist for sulfate and manganese, and the use of these chemicals to treat groundwater jeopardizes the quality of the water after treatment.

With regard to shifting the geochemistry of the aquifer and the potential to increase the concentration of dissolved heavy metals, RegenOx generates basic conditions. Metals mobilization is less likely under basic conditions than acidic conditions. Furthermore, mobilized metals are typically stabilized by the geochemical conditions of the aquifer. In most cases documented, metals naturally revert back to the reduced state after oxidation treatment is complete (ITRC 2004b).

6.1.4 Reactivity with Soil Organics and Inorganics

All oxidants will have some reactivity with soil organics and inorganics. Most important to an in-situ chemical oxidation design, this reactivity can represent a considerable demand of the oxidant that must be added to any calculation of the amount of oxidant needed to remediate any site. This demand is referred to as the Soil Oxidant Demand (SOD), Natural Oxidant Demand (NOD) or Total Oxidant Demand (TOD). The order of importance of TOD to the amount of oxidant needed at a site is as follows:



This order is related inversely to the rate of auto-decomposition of the oxidants, which is as follows:



The reactivity of RegenOx™ is primarily driven by the activator complex. RegenOx™ tends to react less with background oxidant demand from natural organics and inorganics in the soil matrix. A more detailed description of reactivity with soil organics and inorganics is given below in Section 6.2.

6.1.5 Oxidant Longevity and Oxidant Residual

The oxidative effect of RegenOx™ can continue in the subsurface for weeks and in some cases months depending on the quantity and placement of the activator as well as the soil and aquifer geochemistry. Again, the mere presence of an oxidant is only part of the story. Hence, RegenOx™ has significantly greater longevity than standard Fenton's reagent but does not persist in groundwater for the extensive period of time as seen with permanganate – where just observing the pale-purple color may not be relevant to product performance, but may classify the permanganate as a secondary groundwater contaminant.

6.1.6 Safe Application & Easy Materials Handling

RegenOx™ is a two-part product. Part-A (the oxidizer complex) and Part-B (the activator complex) each are separately packaged in easy to handle pails. Part-A and Part-B can be mixed together without concern of excess heat or gas generation. RegenOx™ does not require special injection tools or patented injection processes. The two part product is simply mixed together and pumped into the subsurface using easily-obtainable equipment standard to the remediation contracting and drilling industry.

6.2 Oxidant Loading

In order to determine the amount, or “load” of RegenOx™ required for your project, you will need to understand the oxidant demand of the contaminants of concern, as well as the dispersion and desorption processes in relation to the kinetics of contaminant degradation. Commonly available TOC and COD tests for site soil and groundwater are also valuable tools in RegenOx application design. In some cases, TOD (total oxidant demand) tests are used to estimate the oxidant loading. However, contaminant mass typically drives site design. Matrix effects are considered as modifiers to that basic strategy.

6.2.1 Oxidant Demand of Contaminants of Concern

The oxidant demand of contaminants of concern will come from several possible phases such as dissolved-phase contaminants, sorbed-phase contaminants, free-phase non-aqueous phase liquids (NAPL), and vapor-phase (limited to vadose zone).

In order to estimate the oxidant demand of the contaminants, one must determine the total mass of each contaminant. The width, length, and depth of the source area must be approximated. Based on the type of soil (gravel, sand, silt, clay) assumptions are made as to the pore space volume available to groundwater within the volume and the bulk density of the soil.

The dissolved-phase mass can be approximated from the concentration of contaminants found in monitoring well data. The sorbed-phase demand can be estimated directly using concentrations of contaminants found in soil samples or indirectly from partitioning calculations. This is possible as the mass of contaminant sorbed to the aquifer is a function of the bulk density of the aquifer matrix, the fraction of organic carbon in the matrix (foc), and the contaminant-partitioning coefficient (Koc). Input values for the soil, the bulk density, and the foc can be measured or estimated based on soil types. The Koc value can be obtained for each contaminant from any number of published references (including Regenes software) .

Estimating the mass of free-phase NAPL is a bit more challenging. Methods have been developed by API and US EPA (API 2004, Charbeneau 2000a, Charbeneau 2000b, US EPA 2003).

After the mass has been calculated/estimated, the load of RegenOx™ to be applied is calculated based on the molar ratio of oxidant to contaminant(s) as dictated by the demand of the full oxidation-reduction calculations (mineralization). Contact Regenesi for calculated stoichiometries for specific contaminants. The oxidant demand for each contaminant and each phase is summed to understand the load of RegenOx™ theoretically required to completely oxidize the contamination. To maximize the kinetics of the reaction, the actual load of RegenOx™ may need to be several orders of magnitude higher than the theoretical value.

6.3 Dynamics – Dispersion and Desorption/Diffusion Processes Versus the Reaction Kinetics

In addition to the previous discussion on comparing reaction kinetics, we also must consider the dispersion, desorption, dissolution, and diffusion processes that are affecting both the oxidant and the contaminant transport.

The transport of the oxidant through uncontaminated aquifer regions and its reaction with target contaminants is not entirely a function of the TOD alone but also a function of transport and reaction rates. The oxidant can either react with the contaminant, react with the NOD, or continue on to the next pore space. The relative rates of reaction and transport will determine what happens to the oxidant. If the rate of reaction between the oxidant and NOD is relatively slow, then more oxidant will be available for reaction with the target contaminant or transport to the next pore space. This also implies that since the entire NOD is not necessarily consumed, the next injection of the oxidant may encounter oxidant demand that was not consumed during the first injection. (Mumford 2002)

Generally speaking the longer it takes the chemical oxidant to travel through a given distance in the soil, the greater the oxidant will be consumed by competing demands. Mass transfer of oxidant in high permeability soils (e.g. sand) is dictated by dispersion. Mass transfer of oxidant in low permeability soils (clay) is dictated by diffusion. Diffusion of contaminants also comes into play and thus concentration gradients.

Contaminant oxidation occurs only in the aqueous phase, involving dissolved species of both the contaminant and the oxidant. The solubility of the contaminant ultimately controls the rate of possible oxidation. There is interface mass transfer and then chemical oxidation. Generally in the subsurface, the rate of mass removal is limited by the kinetics of the contaminant dissolution process rather than those of the chemical oxidation reaction.

On the other hand, there is also a strong driving force for the oxidant to diffuse into the deep soil pores and oxidize contamination. The oxidant will diffuse from higher permeability lenses into the lower permeability lenses and react with dissolved contaminants in the low permeability lenses and dead-end pores. The reaction leads to higher concentration gradients for both the oxidant and the contaminants. Since the

oxidant is delivered in an aqueous solution, delivery is not inhibited by variation in soil capillary properties which is often the case for technologies relying on delivery of a gas phase. (LaChance 1998, Watts 2003). The oxidant will move from the sandy zones into the silt layers via advective but advective flow is faster within the sand flow and diffusion (LaChance 1998, Watts 2003).

Chemical oxidants are insoluble in NAPL; therefore, the oxidation reaction takes place in the aqueous phase. Dissolution of DNAPL is a slow process limited by interphase mass transfer, however oxidation can facilitate dissolution. Fenton's reagent reportedly enhanced DNAPL interphase mass transfer (Siegrist 2004a) and again, interphase mass transfer rate during oxidation treatment is greatly improved because chemical gradients are increased significantly for both the oxidant and the DNAPL.

6.4 Oxidant Delivery

Effective distribution of the oxidant is probably the most important factor in the success of an in situ chemical oxidation project. Chemical oxidation requires contact. The chemical oxidant has to come in direct contact with each molecule of contaminant in order to be effective.

The ultimate goal is to deliver enough oxidant to the majority of the pore volume in order to maintain first order kinetics with respect to the contamination until remediation goals are met. This requires knowledge of how the contamination is distributed laterally and vertically, the subsurface lithology, and the hydrogeology. Other factors to consider when choosing a delivery system are whether the contamination to be treated is located in the vadose zone or the saturated zone. It is also important to have knowledge of the location of surface structures and underground utility corridors.

Timely, Multiple “Paired” Injections. Most sites require 3-4 applications to ensure contact and minimize rebound. The 1st and 2nd applications in most designs do not overlap due to offsetting the injection points and together cover ~70-80% of the total treatment area. So, after “2” applications you accomplish one complete treatment. Likewise, the 3rd and 4th treatments accomplish one complete treatment. Therefore, these “paired” injections should be done as soon as possible. On a small site (e.g pilot test) they should be done as a continuous injection event. On a large site, the first injection could be done one week and the second done the next week. Approximately, two weeks later the second paired injection (3 & 4) should be performed.

High Volume Injections. RegenOx injections are designed with relatively high volumes of 10 to 30 gallons per 1 ft. intervals. High volume injection ensures a sufficient emplacement volume (i.e. pore volume displaced by the injected liquid) to achieve good contact between the RegenOx solution and the soil contamination. RegenOx stays active for approximately 15 days (but can last up to a month). During that time advection and dispersion may increase its radius of influence (ROI) up to an additional 20 to 30% of the original emplacement volume. So, it is true that the larger the emplacement volume, the

better the ROI, and the better the contact between RegenOx and the contaminants of concern.

However, high volume injection can create greater subsurface hydraulic pressures that can lead to short-circuiting, and surfacing of fluids. If subsurface pressures are sufficiently high, asphalt and concrete cover can buckle. Although off-gassing from the chemical reaction can contribute to this pressure, the primary driver is the high liquid volumes that have been injected. To avoid the negative effects of high volume injections, make sure that you monitor the injection pressure at the wellhead with a suitable in-line gauge, and maintain the injection pressures below 20 psig. Additionally, the localized hydraulic head can be reduced by adequate spatial separation of installed injection points e.g DO NOT apply the material in a side-by-side fashion. Instead, move to the opposite side of the injection grid thus separating adjacent injection points with as much physical space and time as possible. At some sites, it may be necessary to stop injection for one to two hours to let the aquifer naturally dissipate the hydrostatic pressure.

Oxidant delivery is accomplished either by batch delivery or continuous delivery methods. Batch delivery methods include:

- Direct Push Injection
- Permanent Wells (vertical or horizontal)
- Temporary well points
- Lance – high-powered jet

Continuous delivery methods include:

- Open Ended Systems with injection wells, etc.
- Recirculating Systems with injection and recovery wells

Direct Push Injection Vs. Injection point. Direct push injections and high-pressure jetting rely on injecting into several points placed about 10-feet apart, depending on site-specific hydrology. Multiple injections are required to deliver enough oxidant. In the case of direct push units, the drive rods are pushed to the desired depth and the chemical oxidant is pumped in while slowly pulling up the drive rods. The chemical oxidant can also be injected from the top down by using specially-designed injection rods. High-pressure jetting utilizes systems similar to tree root feeders to inject the chemical oxidant via steel wands that are pushed downward into the subsurface.

Direct Push Injections push injections are preferred because of the greater control, both vertically and horizontally, on where the injected fluids are placed. This method provides more field flexibility and adjustment to unanticipated field conditions. Typical, direct push injections use a grid injection pattern and inject a 3% RegenOx solution (i.e. 3% Part A and 3% Part B.) is used. To maximize the activity of the RegenOx in the aquifer, apply a solution volume that can be injected in ~1 hour (typically <200gals). A detailed description of the RegenOx solution formulation procedure can be found in Section 9.0.

Designs of continuous delivery through injection points generally rely on wells placed

farther apart than batch systems. In the case of the recirculating systems, the hydraulic gradient is enhanced by the cone of depression created by the extraction wells. Permanent wells or recirculating systems in high TOD soils may not prove to be effective. Injection points are particularly conducive to vadose zone treatment where large volumes of solution are required to nearly saturate the soils. Further discussion on oxidant delivery is given in the upcoming section on full-scale design

Application through fixed well delivery points may be recommended if access to the treatment area is problematic or greater than 6 application events are warranted. For injection via a delivery well, the RegenOx concentration recommended is 3% and the Part A and the Part B materials are applied separately. A 3% solution of Part B and water is injected, followed by approximately 100 gallons of water (flush). This is followed by the application of the 3% solution of Part A, and finally, a second 100 gallon water flush. This injection plan prevents the RegenOx solution from clogging the well screen. Clogging does not occur in direct push applications or in the aquifer in general because the flux area is greater than the flux area through the well screen.

Excavation Application RegenOx can be applied in an excavation pit in a number of ways depending on the conditions. If the pit is dry, then RegenOx can be applied as an 8% solution (8% w/w Part A and 8% w/w Part B) is applied, and mixed into the first 1-2 feet of the bottom of the excavation pit. If the pit has standing groundwater, then Part B is applied as a 3:1 solution (3 gallons of Part B with ~1 gallon of water). This solution is mixed into the uppermost 1-2 feet of the excavation floor. Upon mixing, Part A is added as a powder, and mixed into the same uppermost 1-2 feet of the excavation floor. During this process care should be taken to minimize the dust from the Part A. All personnel in the Exclusion Zone should be wearing proper PPE to protect eyes, lungs and skin (see Section 10.2).

7.0 TESTING PARAMETERS & DIAGNOSTICS

7.1 Site Monitoring

Site monitoring testing is performed prior to designing a pilot test or full-scale system to assess conditions and provide a base line to compare to post treatment conditions. Site monitoring is also used to assess the performance of chemical oxidation after injection. It is recommended to collect soil samples in addition to groundwater samples. As discussed earlier in the manual, it is difficult to assess the reduction in mass of contamination without analyzing the extent of contaminant reduction in the soils. Optimally this will require a statistically significant number of soil samples. Analysis of soil samples immediately after an ISCO application may provide rapid feedback on the treatment performance.¹

In order to validate the effectiveness of the chemical oxidation treatment, we recommend

conducting monitoring at selected locations as discussed below. A baseline round of sampling should be performed to identify the groundwater quality/conditions and soil concentrations prior to the injection of the chemical oxidant. Collection of groundwater levels before and during the application may give immediate indication of the radius of influence (ROI) for the treatment. The following Tables outline the parameters and methods that should be used to monitor the progress of an oxidant-based project as well as our recommended monitoring schedule.

Table 7-1: Recommended Field and Laboratory Monitoring Parameters and Frequencies

	<i>Analyte</i>	<i>Method</i>	<i>Baseline</i>	<i>Apr. two weeks after each injection</i>	<i>Four weeks after final injection</i>
Field	pH; dissolved oxygen (DO); oxidation/reduction potential (ORP); conductivity; GW Levels	Meter reading taken in flow-through cell (DO can also be measured with a Hach field test kit)	GW	GW	GW
	Contaminant of concern	Appropriate EPA method	GW Soil	NA	GW Soil

Groundwater Monitoring Locations for a RegenOx™ Application

The following table outlines the suggested locations and significance of monitoring wells used to monitor the progress of an oxidant-based project.

Table 7-2: Recommended Monitoring Well Locations

Location	Significance
Upgradient of treatment zone	Provides a measure of contaminant flux entering treatment zone.
Inside treatment zone	Provides information on how the chemical oxidant is affecting the aquifer conditions and contaminant concentrations
Downgradient of treatment zone	Provides information on the effect the chemical oxidant is having on the degradation rates of contaminants and on aquifer conditions

7.1.1 Oxidant testing

Testing of the RegenOx™ oxidant can be done in the field using specially prepared test kits. Regenesis can direct you where to obtain and use these test kits.

7.2 Bench Testing

Although a field pilot test is the most meaningful indicator of RegenOx treatment feasibility for a given site, for some projects it may be required to conduct a bench scale test in order to demonstrate the feasibility of RegenOx™ to oxidize a specific contaminant under specific field conditions. The bench scale testing also provides a suitable method for calculating first-order degradation rates of both the contaminant and oxidant in the bench test. Note that these rates are independent, as the oxidant degradation rate depends on both the contaminant and soil demand, whereas the contaminant degradation rate depends solely on the oxidant.

The kinetic rates obtained in the lab should not be considered as an accurate prediction of contaminant and oxidant degradation rates in the field. The bench test will overestimate both the contaminant and oxidant degradation rates due to mixing and continuous contact in a closed system. However, rates obtained in the lab may provide useful information about relative contaminant degradation rates and the relative longevity of the oxidant. Regenesis can provide the user with a recommended laboratory protocol for testing RegenOx. Regenesis also continues to add to a large database of information of projects with both lab and field information. With this database and our growing knowledge of the use of this product, we can help you interpret the results of your lab test in a meaningful way.

7.3 Pilot Testing

For projects having unknown or challenging lithologies/hydrologies, Regenesis advises conducting a pilot test on a 20 foot by 20 foot section of the site prior to going full-scale. This pilot test section should be close to the source and in an area that will not be immediately recontaminated by upgradient sources. Generally the pilot test should consist of at least three (3) injection events at a frequency of every one to two weeks. Regenesis will assist the user in calculating the quantity of RegenOx™ that should be used for the pilot test and specifics of the application design.

Field measurements and laboratory samples as described above are collected for a baseline prior to injection. Remember that it is imperative to collect representative groundwater and soil samples as well. One should, whenever possible, have groundwater data for several pretreatment events so the typical fluctuations for that site are known. In particular, you would like samples taken under the same water table conditions.

Ideally, the injection of RegenOx™ during the pilot test would be performed using the same delivery system design anticipated for full-scale design to ensure compatibility of the delivery method (direct injection, temporary wells) with site lithology

One of the best methods to deliver RegenOx™ into the subsurface is to inject the material through direct push rods using hydraulic equipment. This approach increases the spreading and mixing of RegenOx™ into the aquifer. This set of instructions is specific

to direct push equipment. For advice on other injections methods such as soil mixing, hydraulic and pneumatic fracturing, and vertical injection, please contact Regenesiis Technical Services directly.

The installation of RegenOx™ should span the entire vertical contaminated saturated thickness, or in the case of vadose zone treatment the entire affected vadose zone targeted for treatment, and for hydrocarbons it is often critical to treat the capillary fringe.

Typical equipment used for a standard pilot test would include:

- Direct push rig
- Drive Rods (typically 1 ½-inch O.D.) & Injection Tooling with fluid deliver sub-assembly
- Injection Pump rated for 5 gpm @ 200 psi for sandy formations and 800 psi for silt and clay formations (Geoprobe DP-800, Yamada, Moyno, Rupe Models 9-1500 and 9-1600, Wilden, etc.)
- Injection hosing and a pressure relief valve with a bypass
- Clear hosing between mixing tank/drum and pump
- Pressure gauges
- Power drill paint stirrer (3-inch diameter or smaller propeller tip)
- Plastic bucket lid puller tool/opener tool
- 5-amp sump pump (such as Little Giant) and hose
- Three to four 55-gallon drums or similarly sized mixing tanks for RegenOx™ mixing
- Sand, bentonite chips, granular bentonite, cement, hydraulic cement, and quick-set concrete for closing and sealing temporary injection holes
- Wood plugs or similar for temporarily sealing injection holes prior to grout sealing
- Access to water
- Access to electricity

Typical field instrument and groundwater sampling should occur after each injection. The frequency for the post-injection pilot test sampling is shown in Table 7-1.

In addition, soil samples are collected during baseline sampling, between each injection, and after the final injection.

The results of the bench test and/or pilot test are used to determine if full scale treatment is appropriate and, if so, to scale up the project and make modifications to procedures if necessary. Full-scale design is addressed in the Section 8 of this manual.

8.0 Full-Scale Design

8.1 Oxidant Load Calculations

As discussed previously, relying solely on the dissolved-phase concentration of contaminants in the groundwater will underestimate the load of oxidant. Many contaminants will partition onto the soil. In the case of many organic contaminants, the mass of contaminant sorbed to the soil is greater than the mass dissolved in the groundwater. It is best to use contaminant mass results obtained from soil samples collected from the site along with groundwater analyses to estimate the total mass of contamination. In the absence of these data, the mass partitioned to the soil can be estimated using the method described in the earlier Section.

First, it is important to calculate the mass of NAPL remaining in the area to be treated. In many cases NAPL is suspected but not found due to limited sampling. In these cases the practitioner is best to use his/her best professional judgment and assume an amount NAPL if suspected.

As discussed earlier, a site with a large quantity of NAPL (recoverable amounts) will require more cost-effective measures to remove the NAPL prior to considering chemical oxidation as a treatment technology. However, in the absence of any recoverable NAPL layer, one must do their best to calculate the contaminant mass that will be contributed by any residual NAPL present. In order to calculate the proper amount of oxidant, it is important to quantify even a “sheen” of petroleum hydrocarbons into a mass calculation. Methods developed by API and others that can be used to estimate the volume of free product. Also, seasonal variation in the apparent thickness of should be measured.

Once arriving at a total mass of contaminants (in the groundwater, saturated or unsaturated soil, and free-product), the contaminant demand on RegenOx™ is determined by the amount of oxygen required to oxidize each of the contaminants. This stoichiometric ratio obviously varies for each of the contaminants of concern.

Next, consideration is given to including a high enough load of RegenOx™ to assure the best kinetics, assuming adequate delivery, for the reaction. As discussed in Section 2.5, if RegenOx™ is in great excess over the contaminant, then the reaction will be driven by first order or pseudo-first order kinetics. Under this condition, the reaction rate is independent of competing demands for the oxidant unless the oxidant is used before the contaminant is gone.

Example Discussion 1:

Let's consider an example where the target area to be treated is 50 feet by 50 feet and the vertical extent of contamination is 10-feet thick from 20 feet below ground surface (fbgs) to 30 fbgs. The volume of aquifer is 50 feet by 50 feet by 10 feet or 25,000 cubic feet. For this example, the contamination is 40 ppm toluene in groundwater and 20 ppm in the saturated soil. If the porosity of the soil is 30 percent, then the pore volume within the treatment zone is 7500 cubic feet. The mass of toluene in groundwater in this example is then 19 pounds. The mass of toluene in the soil in this example is then 50 pounds (assuming a soil density of 100 pounds per cubic foot). The estimated total mass of toluene in the target area is thus 69 pounds.

The amount of oxygen (as O₂) to oxidize toluene to carbon dioxide is approximately 3 pounds O₂ to 1 pound toluene. A pound of RegenOx™ oxidant delivers 0.15 pounds of available O₂ (remember the discussion in the earlier section on what constitutes available O₂). Therefore approximately 20 pounds of RegenOx™ oxidant are required to oxidize one pound of toluene to carbon dioxide (if complete mineralization was possible). Since we have 69 pounds of toluene in our target area, 1380 pounds of RegenOx™ oxidant will be required.

Even if toluene was the only compound of concern, there exists other organics and minerals in the substrate which will place a demand on the oxidant. Site data such as COD, TOC, and/or TOD on soil and water can be used to estimate additional oxidant requirements. This information is used to determine how much oxidant is needed to maximize the oxidation of toluene. In this example a bench test was not performed, so we will estimate an additional 1 pound oxidant per 1000 pounds of soil or 1750 pounds of RegenOx™ oxidant.

We now have calculated that we theoretically need on the order of 1380 plus 1750 pounds of RegenOx™ oxidant or 3130 pounds to treat the target area.

RegenOx should be applied over multiple applications. In most cases it is more efficient to spread the oxidant load between injections. Regenesis will assist you on how best to calculate the load for each injection.

8.2 Pore Space Requirements

The next step is to consider how much solution to add to the target area. In order to achieve mixing of RegenOx™ in the aquifer while minimizing displacement of the groundwater plume, the design should consider displacing on the order of 10 to 50% of the pore volume. So if the porosity is 30% of the aquifer, then the design would use 3 to 15% of the site volume to be treated in order to calculate the gallons of water to use when injecting RegenOx™

Example discussion 2:

The treatment zone pore volume is 7,500 cubic feet. If our design considers 20% of the pore volume then we are looking at 1500 cubic feet or 11,200 gallons of solution to achieve distribution of the oxidant within the target area.

Now if the target is the vadose zone, injecting generally at least 50% of the porosity is recommended. Actual volumes used will be subject to the proximity and potential impact to the underlying groundwater table.

Knowing how much oxidant is required and how much water is required, one can determine the volume and concentration of RegenOx™ solution that needs to be prepared. Generally, around a 3-5% solution of the RegenOx™ oxidant complex is typically used. Depending on the demand, the percent of oxidant complex can be increased or decreased; however, to ensure complete mixing of the oxidant complex into solution, it is recommended that no more than a 10 percent solution be used.

Example discussion 3:

Back to our example, we want to add 3130 pounds of RegenOx™ oxidant to 11,200 gallons of water. Since the typical mix is 1:1 ratio of RegenOx™ Part –A (oxidant complex) to RegenOx™ Part-B (activator complex), we will also be adding 3130 pounds of RegenOx™ Part-B. In this case a 3% solution (3% of oxidant and 3% of activator or 6% total RegenOx) will provide approximately the injectate volume calculated above in discussion 2. The total 3,130 pounds of part B and 3130 pounds of part A in 11,700 gallons of water produce approximately 12,300 gallons of the desired solution. In practice, solutions are prepared in a number of smaller batches. This 3% solution would mix with the groundwater at a 1:5 ratio, so the theoretical diluted post-injection oxidant concentration would be on the order of 0.6% or 6000 ppm.

8.3 Injection Spacing

After determining how much RegenOx™ is required and how much water to add to it, the next question to answer is the spacing of the injection points. Determining the optimal spacing is a balance between performance and cost. The closer the spacing the better the chances of coming into contact with the contamination, however, the cost of delivery increases as each injection point is added to the grid. For most sites a 10-foot spacing will suffice. Sites with clays will require closer spacing (5- to 8-foot centers) and sites with homogeneous sands can get away with larger spacing (15-foot centers). Note,

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because most RegenOx™ injection designs will incorporate multiple injections and the subsequent injection points will be offset from the original injection points, 10-foot spacing will effectively be only 5-foot spacing or less by the end of the project. The amount of water added during injection will determine the zone that will be immediately affected. If the groundwater velocity indicates sufficient travel velocity between zones (before the oxidant is depleted), then the down-gradient influence will extend beyond the immediate zone of injection.

Example Discussion 4:

In the example scenario, the treatment zone is 50 feet by 50 feet or 2500 square feet. If we consider 10-foot centers for the injection points, we need 25 injection points. The 3% RegenOx™ solution of 12,700 gallons is then spread between 25 points or 508 gallons per point. Since we are treating a 10-foot vertical interval, we would ideally inject 51 gallons of 3% RegenOx™ solution per foot. Alternatively, if we consider 8-foot centers for the injection points, we need 50 injection points and the injection would be 25 gallons of 3% RegenOx™ solution per foot.

8.4 Delivery System Design

There is more than one method of delivering RegenOx™ to the subsurface. These methods can generally be divided into direct injection and delivery wells. Over the years of use of our other products, Regenesys has found that direct injection is typically the optimal approach for shallow soils to ensure thorough distribution across heterogeneous soils. Permanent or temporary injection wells could be used and may be a cost-effective delivery method where repeated injections are required in homogeneous sand. However, if there is a well that is screened across alternating lenses of sand and silts, most of the oxidant will be delivered to the sands because of their greater permeability and less will be delivered to the contamination bound to the silts that have a higher degree of adsorption capacity. For deeper soils, nested wells, packers, or possibly, a combination of wells for deeper injections and direct injection for the shallower interval.

With the use of a direct-push rig or sonic drilling rig, there is more control over the distribution of the oxidant. An injection tool can be used to deliver oxidant across each vertical foot of impacted aquifer. If a silt lens is the primary concern, then a higher concentration of oxidant can be directly pumped into that lens. The relative cost of direct injection also allows for closer spacing than can be achieved with the use of permanent wells.

As mentioned, if the site has NAPL, then the use of temporary injection wells may be cost effective particularly if the wells are screened or nested solely across the NAPL interface. This would allow for repeated injection of oxidant for the purpose of knocking down the NAPL. After there is evidence that the NAPL has been treated, then direct injection can be used to treat the residual underlying the source.

8.5 Re-injection Requirements

It is important to recognize that most applications of chemical oxidation including those using RegenOx™ will require subsequent re-injections. This is obvious when the concentrations of contaminants are so high that the design calculations show it is impossible to meet the load of oxidant in the first injection. However, it is not readily apparent when the concentrations are low enough that the theoretical load of oxidant can be applied in the first injection.

There is an efficiency factor that must be considered at each site that takes into account incomplete distribution of the oxidant and hence regions of incomplete contact of the oxidant with the contaminant molecules. Hence, despite how much oxidant is added, there will be regions in the target treatment area that are not treated. This geometry can be partly overcome by shifting the injection points within the treatment area at each re-injection event.

There is also a limitation on the amount of contaminant that can be oxidized in a given period of time based on the rate of partitioning of the contaminant from the adsorbed soil phase (or NAPL phase in the case of free product). The oxidant will initially oxidize the aqueous fraction of the contaminant. As the concentration of contaminant in groundwater decreases, the equilibrium between the aqueous phase and the sorbed-phase (or free-phase) will change, resulting in an increase in the rate of desorption of contaminant. As the oxidant is consumed and soil organics are oxidized, the concentration of contaminant in the aqueous phase can increase. Monitoring of the site after injection sometimes shows an increase in the concentration of contaminant in the groundwater samples; however, if soil samples are also collected, they should show a corresponding decrease in mass of contaminant.

Estimating the number of injections therefore becomes a function of factoring in inefficiencies due to site geometry and partitioning of the contaminant mass. Regeneration uses several multipliers obtained from its experiential database of sites and combines them into an overall efficiency factor that can vary depending on the site conditions and the type of contamination. The efficiency factor also takes into account the predicted half-life of the contaminant(s). Again, performing a field pilot test would yield a greater understanding of the kinetics of the system and a better indication of the number of injections required.

With the exception of highly-concentrated sites and, especially, NAPL sites, each subsequent set (X3) of injections may require a lesser dosage of oxidant and/or activator thus the cost of each injection will typically be less than the previous sets of injection.

Example Discussion 5:

*Using our example, if we assume that we had enough oxidant to start with and calculated a combined efficiency factor of 0.7, and applied it to 20 ppm toluene in the soil, then we estimate that after the first injection we would have $(1 - 0.7) * 20 \text{ ppm} = 6 \text{ ppm}$ toluene. Repeating this for each injection, we estimate that it will take at least 3 injections to decrease the concentration of toluene to less than 1 ppm. Alternatively, if the combined efficiency factor was 0.6, we would conclude that it will take at least 4 injections.*

There is also the issue of waiting long enough between sets of injections to allow for equilibrium to be approached.

It is also important to keep in mind that given an excess of oxidant, the time it takes to decrease contamination from 5 ppm to 2.5 ppm is the same as from 50 ppm to 25 ppm. This assumes a well mixed system. There is often the perception that the oxidant is not working as well at lower concentrations as compared with higher concentrations. As long as the oxidant is in excess for each case, the oxidation of the contaminant will proceed under first order kinetics which is theoretically the same rate constant regardless of whether the concentration is 50 ppm or 5 ppm.

8.6 Transition to Bioremediation

Chemical oxidation is a useful tool for reducing the mass of contamination. As described throughout this manual, once the concentrations are reduced down to < 10 ppm (or perhaps higher depending on the contaminant's rate of biodegradation), it is often more cost-effective to switch to bioremediation. Of course, the opportunity to switch to bioremediation will be dictated by the time imposed to meet the remedial action objectives. Enhancing bioremediation is also timelier and potentially more cost-effective than relying on monitored natural attenuation to achieve low concentrations goals as usually required for projects with the overall objective of regulatory site closure.

Regenesis is dedicated to assisting environmental professionals in find the most cost-effective solution of combining RegenOx™ with its bioremediation products such as ORC-Advanced® or HRC® to meet treatment goals and project objectives. Visit the Regenesis website, www.regenesis.com, for more information on stimulating *in situ* bioremediation including design and usage.

9.0 Installation

9.1 Application Using Direct-Push Methods (Step-by-Step Procedures)

- 1) Prior to the installation of RegenOx™, any surface or overhead impediments should be identified as well as the location of all underground structures. Underground structures include but are not limited to utility lines; tanks; distribution piping; sewers; drains; and landscape irrigation systems. The planned installation locations should be adjusted to account for all impediments and obstacles. These considerations should be part of the SSHP or HASP.
- 2) Pre-mark the installation locations, noting any points that may have different vertical application requirements or total depth.
- 3) Set up the direct push unit over each point and follow the manufacturer standard operating procedures (SOP) for the direct push equipment. Care should be taken to assure that probe holes remain in the vertical.
- 4) For most applications, RegenesiS suggests using 1.5-inch O.D./0.625-inch I.D drive rods. However, some applications may require the use of 2.125-inch O.D./1.5-inch I.D. or larger drive rods.
- 5) Advance drive rods through the surface pavement, as necessary, following SOP.
- 6) Push the drive rod assembly with an expendable tip to the desired maximum depth. RegenesiS suggests pre-counting the number of drive rods needed to reach depth prior to starting injection activities.
- 7) After the drive rods have been pushed to the desired depth, the rod assembly should be withdrawn three to six inches. Then the expendable tip can be dropped from the drive rods, following SOP. If an injection tool was used instead of an expendable tip, the application of material can take place without any preliminary withdrawal of the rods.
- 8) In some cases, introduction of a large column of air prior to RegenOx™ application may be problematic because the air can block water flow to the treatment area. This is particularly the case in deep injections (>50 ft) with large diameter rods (>1.5-inch O.D.). To prevent the injection of air into the aquifer during RegenOx™ application, as well as to prevent problems associated with heaving sands, fill the drive rods with water, or the RegenOx™ mixture prior dropping the expendable tip or exposing the injection tool.

- 9) The RegenOx™ percent of the oxidizer in solution should range between 3% to 5%. Although solutions up to 8% may be used, this will likely increase the difficulty of injection due to reactivity. Solutions with greater than 8% oxidizer in solution will result in excess reaction and flocculation prior to injection and are not typically recommended

Measure the appropriate quantity of RegenOx™ Oxidizer for one to four vertical foot of injection into a 55 gallon drum or mixing tank. The volume of water per injection location can be calculated from the following formula:

$$\frac{\text{RegenOx Oxidizer lbs/foot}}{(8.34 \text{ lbs/gal water})(\% \text{ RegenOx_Oxidizer solids})} [1 - (\% \text{ RegenOx_Oxidizer solids})]$$

Tighter formations (clays and silts), and even some fine sand formations will likely require higher oxidant percentages since less volume can be injected per location. The following are guides to various RegenOx™ mixing ratios based on the above equation.

- to make a roughly 3% oxidant solution for every 10 lbs of oxidant and 10 lbs of activator (20 lbs total RegenOx™), use 38 gallons of water.
 - to make a roughly 4% oxidant solution for every 10 lbs of oxidant and 10 lbs of activator (20 lbs total RegenOx™), use 28 gallons of water.
 - to make a roughly 5% oxidant solution for every 10 lbs of oxidant and 10 lbs of activator (20 lbs total RegenOx™), use 22 gallons of water.
- 10) Pour the pre-measured quantity of RegenOx™ Oxidizer into the pre-measured volume of water to make the desired target % oxidant in solution. NOTE: always pour the Oxidizer into water, do not pour water into the Oxidizer. Mix the water and oxidant with a power drill and paint stirrer or other mechanical mixing device to ensure that the Oxidizer has dissolved in the water.
- 11) Pour the applicable quantity of the pre-mixed RegenOx™ Activator into the oxidant:water solution. Mix the Oxidant and Activator using a power drill paint stirrer or other mechanical mixing device for at least 5 minutes until a homogenous mixture is formed. After mixing the RegenOx™ mixture should be injected into the subsurface as soon as possible.
- 12) Do not mix more RegenOx™ material than will be used over roughly 1 to 4 feet of injection so as to minimize potential above ground reaction/flocculation prior to injection.

Transfer the contents of the mixing tank to the pump using gravity feed or appropriate transfer pump. (See Section 9.2: Pump Selection) For some types of pumps, it may be desirable to perform a volume check prior to injecting RegenOx™

- 13) Connect the delivery hose to the pump outlet and the delivery sub-assembly. Circulate RegenOx™ through the hose and the delivery sub-assembly to displace air in the hose. NOTE: an appropriately sized pressure gauge should be placed between the pump outlet and the delivery sub-assembly in order to monitor application pump pressure and detect changes in aquifer backpressures during application.
- 14) Connect the sub-assembly to the drive rod. After confirming that all of the connections are secure, pump the RegenOx™ through the delivery system to displace the water/fluid in the rods.
- 15) Slowly withdraw the drive rods. Commonly RegenOx™ injection progress at 1-foot intervals. However, continuous injection while slowly withdrawing single lengths of drive rod (3 or 4 feet) is an acceptable option. The pre-determined volume of RegenOx™ should be pumped into the aquifer across the desired treatment interval.
- 16) Remove one section of the drive rod. The drive rod may contain some residual RegenOx™. Place the RegenOx™-filled rod in a clean, empty bucket and allow the RegenOx to drain. Eventually, the RegenOx™ should be returned to the RegenOx™ pump hopper for reuse.
- 17) Monitor for any indications of aquifer refusal. This is typically indicated by a spike in pressure as indicated or (in the case of shallow applications) RegenOx™ “surfacing” around the injection rods or previously installed injection points. At times backpressure caused by reaction off-gassing will impede the pumps delivery volume. This can be corrected by bleeding the pressure off using a pressure relief/bypass valve (placed inline between the pump discharge and the delivery sub-assembly) and then resume pumping. If aquifer acceptance appears to be low, as indicated by high back pressure, allow sufficient time for the aquifer to equilibrate prior to removing the drive rod.
- 18) Repeat steps 13 through 23 until treatment of the entire contaminated vertical zone has been achieved. It is recommended that the procedure extend to the top of the capillary fringe/smear zone, or to the top of the targeted treatment interval.
- 19) Install an appropriate seal, such as bentonite, above the RegenOx™ material through the entire vadose zone. Prior to emplacing the borehole seal, we recommend placing clean sand in the hole to the top of the RegenOx™ treatment zone (especially important in holes that stay open). Bentonite chips or granular bentonite should be placed immediately above the treatment zone, followed by a cement/bentonite grout to roughly 0.5 feet below ground surface. Quick-set concrete should then be used as a surface seal.

- 20) Remove and clean the drive rods as necessary.
- 21) Finish the borehole at the surface as appropriate (concrete or asphalt cap, as needed). We recommend a quick set concrete to provide a good surface seal with minimal set up time.
- 22) A proper borehole and surface seal assures that the RegenOx™ remains properly placed and prevents contaminant migration from the subsurface. Each borehole should be sealed immediately following RegenOx™ application to minimize RegenOx™ surfacing during the injection process. If RegenOx™ continues to “surface” up the direct push borehole, an appropriately sized (oversized) disposable drive tip or wood plug/stake can be used to plug the hole until the aquifer pressures equilibrates and the RegenOx™ stops surfacing. If wells are used for RegenOx™ injection the RegenOx™ injection wells and all nearby groundwater monitoring wells should be tightly capped to reduce potential for surfacing through nearby wells.
- 23) Periodically compare the pre- and post-injection volumes of RegenOx™ in the holding tank or pump hopper using the pre-marked volume levels. Volume level may not be present on all tanks or pump hoppers. In this case, volume level markings can be temporarily added using known amounts of water and a carpenter’s grease pencil (Kiel crayon).
- 24) Move to the next probe point, repeating steps 8 through 29. We recommend that the next RegenOx™ injection point be as far a distance as possible within the treatment zone from the previous RegenOx™ injection point. This will further minimize RegenOx™ surfacing and short circuiting up an adjacent borehole. When possible, due to the high volumes of liquid being injected, working from the outside of the injection area towards the center will limit expansion of the plume.

9.2 Pump Selection

Regenesis has evaluated a number of pumps and many are capable of delivering RegenOx™ to the subsurface at a sufficient pressure and volumetric rate. However, even though a number of the evaluated pumps may be capable of delivering the RegenOx™ to the subsurface based on adequate pressures and delivery rates, each pump has its own set of practical issues that may make it more or less difficult to manage in a field setting.

In general, Regenesis strongly recommends using a pump with a pressure rating of 200 pounds per square inch (psi) in sandy soil settings, and 800 psi in silt, clay or weathered bedrock settings. Any pump under consideration should have a minimum delivery rate of 5 gallons per minute (gpm). A lower gpm rated pump may be used; however, they are not recommended due to the amount of time required to inject the volume of liquids typically associated with a RegenOx™ injection (i.e. 1,000 lbs of RegenOx™ [500 lbs

Oxidant/500 lbs Activator] require roughly 1,100 gallons of water to make a 5% Oxidant solution).

Quite often diaphragm pumps are used for the delivery of chemical oxidants. Generally, these pumps operate pressures from 50-150 psi. Some of these pumps do not have the pressure head necessary to overcome the back pressure encountered in silt and clay lenses. In these cases the chemical oxidant thus ends up being delivered to the surrounding sands (the path of least resistance) and is not delivered to soil with residual adsorbed contamination. The use of a positive displacement pump such as a piston pump or a progressing cavity pump is may be superior because these pumps have the pressure necessary to overcome the resistance of low permeability soils. NOTE: be aware that application at pressures that are too high may over-consolidate the soil and minimize the direct contact of the oxidant. The key is to inject at a rate and pressure that maximizes the radius of influence without causing preferential flow. This can be achieved by injecting at the minimum pressure necessary to overcome the particular pressures associated with your site soil conditions.

Whether direct injection or wells are used, it is best to start by injecting RegenOx™ outside the contaminated area and spiral laterally inwards toward the source. Similarly, RegenOx™ should be applied starting vertically at the bottom elevation of contamination, through the layer of contamination, and a couple of feet above the layer of contamination. The reagents can be pushed out from the well bore with some water.

9.3 Installation Using Fixed Wells (Methods)

On some projects, it may appropriate to apply RegenOx using fixed wells. This will allow the RegenOx to be reapplied multiple times and reduce a large mass of contaminant incrementally over time.

Application of RegenOx via a series of fixed wells can be accomplished most effectively by separate application of RegenOx Part A and Part B via multiple separate application events. **Most sites require 3-4 applications to ensure contact and minimize rebound.**

NOTE: for the purposes of this discussion, it is assumed that the hydraulic conductivity of this aquifer is sufficient to accept the volumes of material associated with this approach.

Well Installation:

It is critical that the delivery wells associated with this application are installed across the appropriate vertical application interval. These wells should be constructed using 2 or 4-inch diameter Schedule 80 PVC and preferably with the screened section composed of wire-wound PVC with a slot size >0.2 inch. The surrounding filter pack should be composed of an appropriately sized sand/gravel that is a reasonable match to the surrounding soil type. An adequate seal above the screen zone is critical. When possible we recommend a least a one-foot bentonite seal above the filter pack and an addition 3 feet or more or a cement-bentonite(<10%) grout to the surface.

Hydraulic Testing of Wells:

A hydraulic test should be performed prior to implementation of the RegenOx application. This testing consists of the injection of clear water at a volume equivalent to 1.3x the designed injection volume of the RegenOx Part A material.

It is critical that you understand the hydraulic conductivity/volumetric limitation of the aquifer prior to installation of the RegenOx material. Each sites aquifer conductivity and capacity will directly affect the volume of RegenOx applied and the application rate.

Part A Estimation:

Using a designed application rate of 5,970 pounds of Part A material per event, a 5% solution will result in an application volume of 14,214 gallons of total fluids per event.

$$682 \text{ gals Part A} + 13,532 \text{ gals H}_2\text{O} = 14,214 \text{ gals of fluid}$$

Detailed steps for estimation of this volume are provided below. Using a five well application array results an application volume of 2,843gallons/well/event.

$$14,214 \text{ gals of fluid}/5 \text{ wells} = 2,843 \text{ gals/well/event}$$

Hydraulic Test Volume Estimation:

The hydraulic test volume per well is estimated based on the above application rate (2,843 gallons) x (application factor of 1.3). This yields a total clear water test volume of 3,696 gallons/well.

RegenOx Application:

Part B Application

This method is significantly different from a direct-push application. This method requires application of a solution of the catalyst material seperately and prior to application of the Part A oxidant material. As discussed previously, application of Part B is typically installed at a low concentration, spread over two events and is followed by a clear water chaser equal to 1.5-3x the wells borehole volume.

Step 1:

Mix Part B at solution that is 3-8% by weight, see Table 1 (below) for a volumetric estimation per bucket of material for each percentage solution. This range in volume is provided to allow for variations in aquifer types and specifically to adjust for each site's aquifer hydraulic conductivity and effective porosity. The aquifers hydraulic characteristics should dictate the solution percentage.

For example, Part B application in a fine grained aquifer (hydraulic conductivity of 10^{-5} to 10^{-6} cm/sec) should be mixed at approximately a 7% solution by weight while a coarse grained aquifer (10^{-2} to 10^{-3} cm/sec) should be mixed at approximately a 3% solution by weight.

TABLE 1.

No. of Buckets	Weight of Material (lbs.)	Desired Solution (%)	Volume of Water (gals.)
1	30	3	116
1	30	4	86
1	30	5	68
1	30	6	56
1	30	7	48
1	30	8	41

Example:

Based on application into a silty sand aquifer (10^{-4} cm/sec) the Part B solution should be mixed at 5%.

Using the previous example, this application will require a total of 5,970 pounds of Part B applied via two events of 2,985 pounds or 100 bucket/event

$$2,985 \text{ lbs.}/30 \text{ lbs./bucket} = 100 \text{ buckets}$$

Thus, for each of the two Part B applications, the water volume necessary is calculated using the following equation:

$$100 \text{ buckets Part B} \times 68 \text{ gallons water/bucket} = 6,800 \text{ gallons of water}$$

This yields a total solution application per event estimation of:

$$(6,800 \text{ gals of H}_2\text{O} + 260 \text{ gals Part B})/5 \text{ wells} = 1,412 \text{ gals Part B Solution/well/event}$$

Step 2:

Clear Part B material from the injection well and surrounding well pack by application of a clear water chaser equivalent to the volume of 1.5-3x the borehole volume.

Example:

For a 2-inch diameter well with a 6-inch borehole diameter, a total depth of 20 feet (10 feet of blank and 10 feet of screen). A single borehole volume with an assumed sand pack void space of 30% would be the sum of the following:

Borehole Volume = (screened interval borehole volume + blank casing volume)

$$[(10 \text{ feet} \times 0.543 \text{ gals/ft}) + (10 \text{ feet} \times 0.163 \text{ gals/ft})] = 7 \text{ gals}$$

Using a clear water chaser application factor of 1.5-3x yields a total clear water chaser volume ranging from 11 to 21 gallons/well.

For a 4-inch diameter well with a 8.25-inch borehole diameter, a total depth of 20 feet (10 feet of blank and 10 feet of screen). A single borehole volume using an assumed sand pack void space of 30% would be the sum of the following:

Borehole Volume = (screened interval borehole volume + blank casing volume)

$$[(10 \text{ feet} \times 1.23 \text{ gals/ft}) + (10 \text{ feet} \times 0.65)] = 19 \text{ gals}$$

Using a clear water chaser application factor of 1.5-3x yields a total clear water chaser volume ranging from 28 to 57 gallons/well.

Step 3:

Mix Part A at a solution of between 3-5%. As discussed previously the transmissivity and reactivity of a particular aquifer as well as hydraulic testing should be factored into the application volume decision. The stability of RegenOx Part A is optimal at approximately 3%. In coarse grained aquifers it is best to apply Part A at or near a 3% solution. In fine grained aquifers it may be necessary to decrease the water content to near a 5% solution. NOTE: Do not apply a Part A that is >5% solution.

Example:

Based on application of Part A solution into a silty sand aquifer, the Part A solution should be mixed at 5%. As discussed previously this application is designed for application of 5,970 pounds of Part A per event via a 5 well application array. Using Table 1 the number of buckets of Part A is required is estimated as follows:

$$5,970 \text{ lbs Part A} / 30 \text{ lbs/bucket} = 199 \text{ buckets}$$

The volume of water necessary to create a 5% Part A solution is calculated using Table 1 and the following equation:

$$199 \text{ buckets Part A} \times 68 \text{ gallons H}_2\text{O/bucket} = 13,532 \text{ gallons of H}_2\text{O}$$

This yields a total solution application per event estimation of:

$$(13,532 \text{ gals of H}_2\text{O} + 682 \text{ gals Part A}) / 5 \text{ wells} = 2,843 \text{ gals Part A Solution/well/event}$$

Step 4:

Clear the Part A solution from the injection well and some of the surrounding well pack by application of a clear water chaser equivalent to the volume of 1.5-3x the borehole volume.

Example:

For a 2-inch diameter well with a 6-inch borehole diameter, a total depth of 20 feet (10 feet of blank and 10 feet of screen). A single borehole volume with an assumed sand pack void space of 30% would be the sum of the following:

Borehole Volume = (screened interval borehole volume + blank casing volume)

$$[(10 \text{ feet} \times 0.543 \text{ gallons/ft}) + (10 \text{ feet} \times 0.163)] = 7.1 \text{ gallons}$$

Using a clear water chaser application factor of 1.5-3x yields a total clear water chaser volume ranging from 11 to 21 gallons/well.

For a 4-inch diameter well with a 8.25-inch borehole diameter, a total depth of 20 feet (10 feet of blank and 10 feet of screen). A single borehole volume using an assumed sand pack void space of 30% would be the sum of the following:

Borehole Volume = (screened interval borehole volume + blank casing volume)

$$[(10 \text{ feet} \times 1.23 \text{ gallons/ft}) + (10 \text{ feet} \times 0.65)] = 19 \text{ gallons.}$$

Using a clear water chaser application factor of 1.5-3x yields a total clear water chaser volume ranging from 28 to 57 gallons/well.

Repeat the above series of steps as needed. As discussed previously the first two injection events will consist of application of Part B followed by Part A and thereafter as a series of Part A only injections.

Pumps:

It stands to reason that application of RegenOx via a series of wells is best accomplished using a pump that can deliver high volumes of fluids in a relatively low pressure setting. Regeneration has evaluated a number of pumps that are capable of delivery of these volumes of RegenOx in a reasonably efficient manner. These pumps are typically the positive displacement pumps and the diaphragm pumps. The positive displacement pumps are generally a stader driven (auger) and are electrically driven via a generator while the diaphragm pump is composed of one or two diaphragms that use pneumatic pressure to drive the pump. Both of these types of pumps can provide a relatively high volume of reagent while allowing significant control of volume and pressure.

Pressure Gauge System:

It is critical that application of RegenOx be performed with proper pressure gauge set up. The gauges used should be configured to read PSI at the pump effluent and either along the delivery line or at the well head. This provides on-site personnel with adequate information on the pumps working pressure as well as the well delivery pressure. The difference in the two is the result of line loss. It is critical that application of RegenOx not exceed the burst pressure of the application well casing.

9.4 Pump Cleaning

For best results, flush all moving parts and hoses with clean water at the end of the day, flush the injection system with a mixture of water and biodegradable cleaner such as Simple Green.

9.5 Post-Treatment Performance Monitoring

After the injection, treatment progress should be monitored by collecting groundwater and/or soil samples and analyzing the parameters discussed earlier in Section 7.0.

The sampling frequency is dictated by the anticipated half-lives of the contaminants. It is important to recognize that sufficient time is required to evaluate conditions after the site reaches a new, post-treatment equilibrium.

10.0 Health and Safety / Handling

10.1 Material Overview

RegenOx™ is packaged in two parts. Part-A is the RegenOx™ Oxidizer complex and Part-B is the RegenOx™ Activator complex. Part-A and Part-B are shipped in separate 5-gallon buckets and each bucket has a gross weight of approximately 32 pounds (net weight of RegenOx™ material in each bucket is 30 pounds). The RegenOx™ Oxidizer complex is shipped as a fine white powder and the RegenOx™ Activator complex is shipped as a liquid gel. The Activator has a viscosity roughly equivalent to honey. It is common for stored RegenOx™ Activator to settle somewhat in a container, so it is imperative to adequately pre-mix the RegenOx™ Activator prior to mixing it with the RegenOx™ Oxidizer. Mixing the RegenOx™ Part-B Activator with water at a ratio of roughly 1 gallon water per bucket of Activator makes the activator pourable and easier to work with. A Material Safety Data Sheet for Part-A (RegenOx™ Oxidizer) and for Part-B (RegenOx™ Activator) is provided with each shipment..

10.1.1 Placarding/Labeling

RegenOx™ Part –A (oxidizer complex) is an oxidizer, as such, it should be handled with care and only by personnel trained for handling and storage of hazardous materials. Shipping of this material is regulated under the Transport of Dangerous Goods Act.

RegenOx™ Part-A carries the following designations:

D.O.T. Shipping Name:	5.1 Oxidizer N.O.S.
UN Number:	1479
Hazard Class:	5.1
Labels:	5.1 (Oxidizer)
Packaging Group:	III

Part – B (activator complex) is not regulated as a hazardous material.

10.1.2 Compatibility in Storage

Keep strong oxidants such as RegenOx Part-A (oxidizer complex) away from combustible materials, reducing agents, acids, bases, and sources of heat (steam pipes, electrical appliances, heating vents). Store RegenOx Part-A in an area separated from RegenOx Part-B (activator complex). Store in a cool, dry area in closed containers. Follow NFPA 430 guidelines.

10.1.3 Compatibility with Underground Structures and Pipes

The use of RegenOx™ in proximity to underground tanks and pipes is not a concern. Underground tanks and pipes are installed to meet the relatively corrosive conditions of wet soil. Also, the advent of Fiberglass Reinforced Plastics (FRPs) has greatly diminished the overall concerns in this area. Both metal and FRP installations are normally exposed to fairly wide ranges of pH, oxygen saturated water and even corrosive mineral contents. Interactions with metals and plastics are an extremely complicated phenomenon that is dependent on time, temperature and concentrations. Given enough time, oxidizers and caustic solutions will slowly react with certain metals and plastics. RegenOx has a high oxidizing potential and a high pH; however, RegenOx is relatively short-lived in the subsurface (2-4 weeks). Because the high pH and oxidizing conditions are very localized and temporary, RegenOx will not affect most subsurface structures near the treatment zone. A detailed discussion of materials compatibility follows.

Metals

After RegenOx application, a pH increase is often observed in the treatment area. The actual pH values can range anywhere from 7-12, with pH values of 9-10 most common. Generally, pH values return to neutral or ambient levels within 4 weeks following the injection event. Iron corrosion rates drop at high pH (10-12), so a high pH may actually inhibit iron corrosion. However, as pH increases, corrosion rates increase for aluminum and zinc. If the pH remains high for an extended period of time, this may have implications for buried electrical conduit which are frequently zinc coated iron or aluminum.

In order to summarize all the factors that may lead to metal corrosion, it is customary to use a grading system as an overall guide. In a corrosion index (Table 28-2) in the Chemical Engineer's Handbook (edited by Perry and Green, 1997), two categories apply to RegenOx: oxidizing media and alkaline solutions. This index is graded from 0-6 with a rating of 4-6 being good to excellent in terms of compatibility. A summary of the relevant information from this table is shown in Table 10-1 below. Materials rated a 4 or higher with oxidizing media and alkaline solutions include cast iron, ductile iron, mild steel, stainless steel, Incoloy 825 nickel-iron-chromium alloy, hastelloy alloy C-276 and Inconel 600. Materials receiving low ratings (unsuitable, poor or fair) with oxidizing media include aluminum brass, nickel-aluminum bronze, lead and silver. Caustic conditions may cause problems with silicon iron, aluminum, aluminum brass, nickel-aluminum bronze, lead, titanium and zirconium.

Plastics

A wide range of plastics and pipes or Fiberglass Reinforced Plastics (FRPs) may be used in underground service. Each type of plastic will have its own characteristic definition profile. These tanks and pipes are replacing metals due to their greater chemical resistance to corrosion. In many cases plastics can withstand significant concentrations of caustic chemicals. Overall, FRPs withstand a variety of harsh outdoor conditions where they are subjected to high temperatures, ozone and UV over long periods of time.

Table 10-1. General Corrosion Properties of Some Metals and Alloys (from Perry's Chemical Engineers Handbook, Table 28-2)

Materials	<i>Alkaline Solutions Caustic and mild alkalies</i>	<i>Oxidizing Media Neutral or alkaline solutions</i>
<i>Cast iron</i>	4	4
<i>Ductile iron</i>	4	4
<i>Mild Steel</i>	4	4
<i>Ni-Resist corrosion cast iron</i>	5	5
<i>Stainless steel</i>	4 – 5	6
<i>14% Silicon iron</i>	2	6
<i>Incoloy 825 nickel-iron-chromium alloy</i>	5	6
<i>Hastelloy alloy C-276</i>	5	6
<i>Hastelloy alloy B-2</i>	4	3
<i>Inconel 600</i>	6	6
<i>Copper-nickel alloys up to 30% nickel</i>	5	4
<i>Monel 400 nickel-copper alloy</i>	6	5
<i>Nickel</i>	6	5
<i>Copper and silicon bronze</i>	4	4
<i>Aluminum brass</i>	2	3
<i>Nickel-aluminum bronze</i>	2	3
<i>Bronze</i>	4	4
<i>Aluminum and its alloys</i>	0	0-4
<i>Lead</i>	2	2
<i>Silver</i>	6	2
<i>Titanium</i>	2	6
<i>Zirconium</i>	2	6

10.2 Personal Protective Equipment

Personnel working with or in areas of potential contact with RegenOx should be required at a minimum to be fitted with modified Level D personal protective equipment:

- Eye protection – Wear goggles or a face shield
- Head – Hard hat when required
- Respiratory – Use dust respirator approved by NIOSH/MSA
- Hands – Wear neoprene gloves
- Feet – Wear steel toe shoes with chemical resistant soles or neoprene boots
- Clothing – Wear long sleeve shirts and long pant legs. Consider using a Tyvek body suit, Carhartt coverall or splash gear

10.3 On-Site Handling

Stainless steel 304 or 316 is recommended for mixing, conveyance and storage equipment. Other compatible materials include: polyvinyl chloride, polyethylene, Plexiglass, Teflon, Viton, stoneware and glass.

Water should be readily available on site for dilution and eyewash

RegenOx™ Part-A (oxidizer complex) is soluble to a maximum concentration of about 12% in water. If you add it to soil with less than an 11 to 1 ratio of water to RegenOx™ Part-A there will be free salt which when partially wet may decompose to give off oxygen. Thus, if you treat a soil pile with only 22% water you should only use up to 2% oxidant by weight to avoid off-gassing significant amounts of oxygen.

Do not apply directly onto a separate phase hydrocarbon layer within a well or open excavation.

If spilled, follow the steps listed on the MSDS sheets to ensure proper cleanup.

Strong oxidizers that become waste material are classified as hazardous waste. An acceptable disposal method for spent RegenOx™ is to dilute with copious amounts of water and dispose via a treatment system. Any disposal method must be in compliance with all federal, state, and local agencies.

10.4 Permitting

10.4.1 Class V UIC permit

Wells for the injection of RegenOx may be considered Class V injection wells as per the federal Underground Injection Control (UIC) Program which falls under the federal Safe Drinking Water Act (SDWA) and are permitted by rule. Depending the specific location of the project, State UIC programs may be delegated complete or partial enforcement responsibility (or primacy) by the USEPA. Class V well regulated by specific state UIC programs may however require a permit. Regenesys can assist you in determining permit requirements and filling out permit forms.

10.4.2 State and Local Agency Requirements

In most cases, state and local agencies view chemical oxidation treatment with RegenOx as beneficial to aquifer quality. Prior to field application however, agencies may require information on the remediation plan. Examples of information that may be required include:

- The overseeing agency will most likely require a remediation plan,
- The zone of chemical oxidant discharge must be acceptable to the agency (and usually limited to within the contaminant plume),
- The rate and volume of reagent injection must not cause undesirable migration of the reagents or of the contaminants already present in the aquifer,
- The remediation plan must address groundwater monitoring requirements associated with the use of the RegenOx™ technology based on site-specific hydrogeology and conditions.

11.0 Regenesi s Support

It is Regenesi s' goal to provide unmatched technical support and service to environmental professionals around the world. In order to achieve this goal Regenesi s has developed several levels of service available to interested parties. This includes a world-wide network of Field Technical Managers and a dedicated staff of Technical Service Representatives (experienced field scientists and engineers) that stand ready to assist in remediation design and cost estimation.

Additionally, reference documentation and case histories are available, as well as a library of technical documents published by third-party engineering firms and regulators on the use of Regenesi s' products to remediate contaminated groundwater and soils world-wide.

For more information please contact us or visit www.regenesis.com.



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Ref Type: Report

Oxygen Release Compound – Advanced (ORC *Advanced*TM)
MATERIAL SAFETY DATA SHEET (MSDS)

Last Revised: March 13, 2007

Section 1 - Material Identification

Supplier:



REGENESIS

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San Clemente, CA 92673

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Chemical Description: A mixture of Calcium OxyHydroxide [CaO(OH)₂] and Calcium Hydroxide [Ca(OH)₂].

Chemical Family: Inorganic Chemical

Trade Name: Advanced Formula Oxygen Release Compound
(ORC *Advanced*TM)

Chemical Synonyms Calcium Hydroxide Oxide; Calcium Oxide Peroxide

Product Use: Used to remediate contaminated soil and groundwater (environmental applications)

Section 2 – Composition

<u>CAS No.</u>	<u>Chemical</u>
682334-66-3	Calcium Hydroxide Oxide [CaO(OH) ₂]
1305-62-0	Calcium Hydroxide [Ca(OH) ₂]
7758-11-4	Dipotassium Phosphate (HK ₂ O ₄ P)
7778-77-0	Monopotassium Phosphate (H ₂ KO ₄ P)

Section 3 – Physical Data

Form:	Powder
Color:	White to Pale Yellow
Odor:	Odorless
Melting Point:	527 °F (275 °C) – Decomposes
Boiling Point:	Not Applicable (NA)
Flammability/Flash Point:	NA
Auto- Flammability:	NA
Vapor Pressure:	NA
Self-Ignition Temperature:	NA
Thermal Decomposition:	527 °F (275 °C) – Decomposes
Bulk Density:	0.5 – 0.65 g/ml (Loose Method)
Solubility:	1.65 g/L @ 68° F (20° C) for calcium hydroxide.
Viscosity:	NA
pH:	11-13 (saturated solution)
Explosion Limits % by Volume:	Non-explosive
Hazardous Decomposition Products:	Oxygen, Hydrogen Peroxide, Steam, and Heat
Hazardous Reactions:	None

Section 4 – Reactivity Data

Stability: Stable under certain conditions (see below).

Conditions to Avoid: Heat and moisture.

Incompatibility: Acids, bases, salts of heavy metals, reducing agents, and flammable substances.

Hazardous Polymerization: Does not occur.

Section 5 – Regulations

TSCA Inventory List: Listed

CERCLA Hazardous Substance (40 CFR Part 302)

Listed Substance: No

Unlisted Substance: Yes

Reportable Quantity (RQ): 100 pounds

Characteristic(s): Ignitibility

RCRA Waste Number: D001

SARA, Title III, Sections 302/303 (40 CFR Part 355 – Emergency Planning and Notification)

Extremely Hazardous Substance: No

SARA, Title III, Sections 311/312 (40 CFR Part 370 – Hazardous Chemical Reporting: Community Right-To-Know)

Hazard Category: Immediate Health Hazard
Fire Hazard

Threshold Planning Quantity: 10,000 pounds

Section 5 – Regulations (cont)

SARA, Title III, Section 313 (40 CFR Part 372 – Toxic Chemical Release Reporting: Community Right-To-Know

Extremely Hazardous Substance:

No

WHMIS Classification:

C

Oxidizing Material
Poisonous and Infectious Material
Material Causing Other Toxic Effects –
Eye and Skin Irritant

D

Canadian Domestic Substance List:

Not Listed

Section 6 – Protective Measures, Storage and Handling

Technical Protective Measures

Storage:

Keep in tightly closed container. Store in dry area, protected from heat sources and direct sunlight.

Handling:

Clean and dry processing pipes and equipment before operation. Never return unused product to the storage container. Keep away from incompatible products. Containers and equipment used to handle this product should be used exclusively for this material. Avoid contact with water or humidity.

Section 6 – Protective Measures, Storage and Handling (cont)

Personal Protective Equipment (PPE)

	<p><u>Calcium Hydroxide</u></p> <p>ACGIH® TLV® (2000)</p> <p>5 mg/m³ TWA</p> <p>OSHA PEL</p>
Engineering Controls:	<p>Total dust–15 mg/m³ TWA</p> <p>Respirable fraction–</p> <p>5 mg/m³ TWA</p> <p>NIOSH REL (1994)</p> <p>5 mg/m³</p>
Respiratory Protection:	<p>For many conditions, no respiratory protection may be needed; however, in dusty or unknown atmospheres use a NIOSH approved dust respirator.</p>
Hand Protection:	<p>Impervious protective gloves made of nitrile, natural rubber or neoprene.</p>
Eye Protection:	<p>Use chemical safety goggles (dust proof).</p>
Skin Protection:	<p>For brief contact, few precautions other than clean clothing are needed. Full body clothing impervious to this material should be used during prolonged exposure.</p>
Other:	<p>Safety shower and eyewash stations should be present. Consultation with an industrial hygienist or safety manager for the selection of PPE suitable for working conditions is suggested.</p>
Industrial Hygiene:	<p>Avoid contact with skin and eyes.</p>
Protection Against Fire & Explosion:	<p>NA</p>

Section 7 – Hazards Identification

Emergency Overview:	<p>Oxidizer – Contact with combustibles may cause a fire. This material decomposes and releases oxygen in a fire. The additional oxygen may intensify the fire.</p>
Potential Health Effects:	<p>Irritating to the mucous membrane and eyes. If the product splashes in ones face and eyes, treat the eyes first. Do not dry soiled clothing close to an open flame or heat source. Any</p>

Regenesis - ORC Advanced MSDS

clothing that has been contaminated with this product should be submerged in water prior to drying.

- Inhalation:** High concentrations may cause slight nose and throat irritation with a cough. There is risk of sore throat and nose bleeds if one is exposed to this material for an extended period of time.
- Eye Contact:** Severe eye irritation with watering and redness. There is also the risk of serious and/or permanent eye lesions.
- Skin Contact:** Irritation may occur if one is exposed to this material for extended periods.
- Ingestion:** Irritation of the mouth and throat with nausea and vomiting.

Section 8 – Measures in Case of Accidents and Fire

- After Spillage/Leakage/Gas Leakage:** Collect in suitable containers. Wash remainder with copious quantities of water.
- Extinguishing Media:** See next.
- Suitable:** Large quantities of water or water spray. In case of fire in close proximity, all means of extinguishing are acceptable.
- Further Information:** Self contained breathing apparatus or approved gas mask should be worn due to small particle size. Use extinguishing media appropriate for surrounding fire. Apply cooling water to sides of transport or storage vessels that are exposed to flames until the fire is extinguished. Do not approach hot vessels that contain this product.
- First Aid:** After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Consult an ophthalmologist in all cases.

Section 8 – Measures in Case of Accidents and Fire

- Eye Contact:** Flush eyes with running water for 15 minutes, while keeping the eyelids wide open. Consult with an ophthalmologist in all cases.
- Inhalation:** Remove subject from dusty environment. Consult with a physician in case of respiratory symptoms.

Regenesis - ORC Advanced MSDS

Ingestion:	If the victim is conscious, rinse mouth and administer fresh water. DO NOT induce vomiting. Consult a physician in all cases.
Skin Contact:	Wash affected skin with running water. Remove and clean clothing. Consult with a physician in case of persistent pain or redness.
Special Precautions:	Evacuate all non-essential personnel. Intervention should only be done by capable personnel that are trained and aware of the hazards associated with this product. When it is safe, unaffected product should be moved to safe area.
Specific Hazards:	<u>Oxidizing substance.</u> Oxygen released on exothermic decomposition may support combustion. Confined spaces and/or containers may be subject to increased pressure. If product comes into contact with flammables, fire or explosion may occur.

Section 9 – Accidental Release Measures

Precautions:	Observe the protection methods cited in Section 3. Avoid materials and products that are incompatible with product. Immediately notify the appropriate authorities in case of reportable discharge (> 100 lbs).
Cleanup Methods:	Collect the product with a suitable means of avoiding dust formation. All receiving equipment should be clean, vented, dry, labeled and made of material that this product is compatible with. Because of the contamination risk, the collected material should be kept in a safe isolated place. Use large quantities of water to clean the impacted area. See Section 12 for disposal methods.

Section 10 – Information on Toxicology

Toxicity Data

Acute Toxicity:	Oral Route, LD ₅₀ , rat, > 2,000 mg/kg (powder 50%) Dermal Route, LD ₅₀ , rat, > 2,000 mg/kg (powder 50%) Inhalation, LD ₅₀ , rat, > 5,000 mg/m ³ (powder 35%)
Irritation:	Rabbit (eyes), severe irritant

Regenesis - ORC Advanced MSDS

Sensitization:	No data
Chronic Toxicity:	In vitro, no mutagenic effect (Powder 50%)
Target Effects:	Organ Eyes and respiratory passages.

Section 11 – Information on Ecology

Ecology Data

	10 mg Ca(OH) ₂ /L: pH = 9.0
	100 mg Ca(OH) ₂ /L: pH = 10.6
Acute Exotoxicity:	Fishes, Cyprinus carpio, LC ₅₀ , 48 hrs, 160 mg/L Crustaceans, Daphnia sp., EC ₅₀ , 24 hours, 25.6 mg/L (Powder 16%)
Mobility:	Low Solubility and Mobility Water – Slow Hydrolysis. Degradation Products: Calcium Hydroxide
Abiotic Degradation:	Water/soil – complexation/precipitation. Carbonates/sulfates present at environmental concentrations. Degradation products: carbonates/sulfates sparingly soluble
Biotic Degradation:	NA (inorganic compound)
Potential for Bioaccumulation:	NA (ionizable inorganic compound)

Section 11 – Information on Ecology (cont)

	Observed effects are related to alkaline properties of the product. Hazard for the environment is limited due to the product properties of:
Comments:	<ul style="list-style-type: none">• No bioaccumulation• Weak solubility and precipitation as carbonate or sulfate in an aquatic environment. Diluted product is rapidly neutralized at environmental pH.
Further Information:	NA

Section 12 – Disposal Considerations

Waste Disposal Method: Consult current federal, state and local regulations regarding the proper disposal of this material and its emptied containers.

Section 13 – Shipping/Transport Information

D.O.T Name: **Shipping** Oxidizing Solid, N.O.S [A mixture of Calcium OxyHydroxide [CaO(OH)₂] and Calcium Hydroxide [Ca(OH)₂].

UN Number: 1479

Hazard Class: 5.1

Label(s): 5.1 (Oxidizer)

Packaging Group: II

STCC Number: 4918717

Section 14 – Other Information

HMIS® Rating	Health – 2	Reactivity – 1
	Flammability – 0	PPE - Required

HMIS® is a registered trademark of the National Painting and Coating Association.

NFPA® Rating	Health – 2	Reactivity – 1
	Flammability – 0	OX

NFPA® is a registered trademark of the National Fire Protection Association.

Reason for Issue: Update toxicological and ecological data

Section 15 – Further Information

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available.

March 8, 2012

Raphael Katani, CPG
New York State Department of Environmental Conservation
Engineering Geologist II
Hazardous Materials Unit
NYS DEC
47-40 21st Street
Long Island City, NY 11101

Subject: Subsurface Investigation Report
NYSDEC File No. R2-20091106-652
291 Metropolitan Avenue, Brooklyn, NY

Dear Raphael,

This report was prepared to summarize the results of the subsurface investigation performed at the subject property during the period between February 6 and February 13, 2012. The investigation was performed in order to evaluate the presence of light non aqueous phase liquids (LNAPL), volatile organic compounds (VOCs), and semivolatile organic compounds (SVOCs) within the subsurface at the subject property. The scope of work was based on the historic presence of gasoline and waste oil underground storage tanks (USTs) at the site and the comments provided by the New York State Department of Environmental Conservation letter dated January 30, 2012.

BACKGROUND

The site was a former automotive service station with a bank of 6 gasoline underground storage tanks. A subsurface investigation dated February 8, 2007 was conducted by Advanced Site Restoration (ASR). The investigation included the installation of 6 soil borings, collection of soil samples from each location for volatile (VOC) and semi-volatile (SVOC) organic compounds, and the collection of two temporary well water samples for VOCs and SVOCs at two locations.

The results of this investigation detected the presence of VOCs within groundwater at the two temporary well locations. The highest levels of VOCs (MtBE) was detected within SB-2, located north of the former gasoline UST area. Elevated levels of VOCs were detected within soil at the approximate depth of the water table at two locations. Elevated levels of SVOCs (Naphthalene) were detected at one location.

In addition to the ASR study, A supplemental investigation report by PW Grosser dated September, 2010 reported the presence of LNAPL identified as a fuel/waste oil within SB-7. Dissolved total volatile organic compounds were also detected within temporary geoprobe groundwater wells at concentrations ranging from ND to 128,000 ppb.

The soil at the site consisted of fine to medium sand and silt. The depth to groundwater was 17 to 20 feet below grade. The direction of groundwater flow was estimated to be towards the northwest.

Subsequent to the PW Grosser site investigation, a total of six 550 gallon gasoline USTs and 1 waste oil UST were removed from the site. In addition, a total of 470 tons of contaminated soil was removed from the site and disposed at an appropriate permitted facility by Soil Safe Inc.

SCOPE OF WORK

Soil Boring/Monitoring Well Installation

A geoprobe equipped with hollow-stem auger drilling rig with 5-foot Macro Core sampling capability was used to install a total of 6 soil borings at the site. The Macro Core samples were collected at 5 foot intervals. Each Macro Core sample was containerized and screened for VOCs using a photoionization detector (PID).

The monitoring wells MW-1, MW-2, MW-3, SVE-1, and HVE-1 were constructed with 2-inch PVC screen (0.01slot) and casing. MW-4 was constructed using 1-inch PVC screen (0.01slot) and casing due to well bore distortion due to subsurface obstructions during the drilling process. A silica sand pack was installed within the annulus between the well screen and the borehole. A 3-foot bentonite seal was placed above the well screen to prevent surface water infiltration into the well. Each well was finished with a 6-inch flush mounted road box. A site map was included as Figure 1.

Drilling refusal occurred at 3 successive locations southeast of MW-3 towards Roebling Street. The refusals were caused by the presence of urban fill containing large boulders, concrete, etc within the subsurface between MW-3 and Roebling Street. Similar difficulties were encountered during the installation of MW-4 and HVE-1.

The soil sample from each soil boring exhibiting the highest level of VOCs (as detected with the PID) was submitted for laboratory analysis according to EPA Method 8260. If VOCs were not detected, the soil sample from the water table was submitted for laboratory analysis. A single soil sample from MW-4 was also submitted for analysis according to EPA 8270 (SVOCs). Soil samples were analyzed by York Analytical Laboratories in Stratford, CT.

Monitoring Well Survey, Gauging, and Sampling

The top of casing elevation of each monitoring well was surveyed to a relative datum. Prior to sampling, a Solinst water level meter was used to measure the depth to groundwater within each well relative to the top of casing elevation. A total of 3 well volumes of groundwater was purged from each well and groundwater samples were collected for analysis according to EPA Method 8260. Groundwater samples were also collected from MW-4 and HVE-1 for analysis according to EPA Method 8270 (SVOCs). Purge water was stored within a 55 gallon drum on-site. The samples were analyzed by York Environmental Laboratories in Stratford, CT.

RESULTS

Site Hydrogeology

Native soil appeared to be present at the locations of MW-1, MW-2, MW-3, and SVE-1. The upper 18 feet of the native soil at the site consisted of fine to medium sand with some silt and little clay. Within this interval, some medium dense, silt and clay lenses were observed with thickness ranging between several inches to several feet. Below 18 feet, the soil type changed to saturated medium to coarse sand with some fine sand.

Non-native urban fill appeared to be present at locations MW-4 and HVE-1 to a depth of approximately 15 feet below grade. The fill material contained evidence of historic urban fill and debris including large boulders. Below 15 feet, medium sand with some fine sand was encountered at MW-4. Soil boring logs were included as Attachment 1.

The depth to groundwater was approximately 18 feet below grade. The direction of groundwater flow is generally towards the northwest, however, it appears that a groundwater is mounded within the area of the former gasoline underground storage tank (UST) excavation area. Groundwater gauging data was included as Attachment 2. A groundwater contour map was included as Figure 2.

During this investigation, former soil boring SB-7 was found to contain a 1-inch pvc pipe that extended to a depth of approximately 18 feet below grade. This pipe contained LNAPL (black oily sludge). Due to the difficulty

(urban fill, boulders, refusal) of drilling MW-4 located down-gradient of the waste oil tank area, an attempt was made to over-drill SB-7 in order to install a 2-inch high vacuum extraction (HVE) well. This attempt was met with refusal at 15 feet below grade. HVE-1 was eventually installed within the footprint of the waste oil UST excavation patch, at a distance of approximately 5 feet from SB-7.

Soil Sampling Results

The presence of waste oil was not detected within the former waste oil tank area (MW-4 and HVE-1) which were located within 3-feet and 5 feet, respectively of previous boring SB-7. A 3-inch band of slightly stained soil was observed at the 19 feet below grade. This sample was containerized for analysis according to EPA 8270. The results of the PID field screening were included in the boring logs and summarized below in Table 1.

Table 1
PID Results
Parts Per Million

<u>Location</u>	<u>Sample Interval Feet Below Grade</u>	<u>Total VOCs</u>
MW-1	0-5	ND
	5-10	ND
	10-15	ND
	15-20	ND
MW-2	0-5	NR
	5-10	ND
	10-15	ND
	15-20	113
MW-3	0-5	ND
	5-10	ND
	10-15	ND
	15-20	ND
MW-4	0-5	NR
	5-10	ND
	10-15	ND
	15-20	ND
SVE-1	0-5	ND
	5-10	173
	10-15	332
	15-20	227

Key:
ND - Not Detected
NR - No Recovery

The highest levels of VOCs were detected at SVE-1. VOC impacts were detected at depths ranging from 5 to 20 feet below grade, with the highest concentrations detected within the 10-15 foot sample interval. Lower levels were detected within the groundwater table located at approximately 18 feet below grade.

Lower levels of VOCs (113 ppm) were also detected within the water table elevation at MW-2. VOCs were not detected within any of the other sample locations.

The soil sample analytical results were summarized below in Table 2.

Table 2
Hydrocarbons in Soil
Parts Per Billion

<u>Location</u>	<u>Sample Interval Feet Below Grade</u>	<u>Benzene</u>	<u>Total VOCs</u>	<u>Total SVOCs</u>
MW-1	15-20	ND	20.2	NS
MW-2	15-20	ND	17740	NS
MW-3	15-20	ND	20.4	NS
MW-4	15-20	NS	NS	ND
SVE-1	10-15	ND	112910	NS

Key:

VOCs - Volatile Organic Compounds - EPA 8260

SVOCs - Semivolatile Organic Compounds - EPA 8270

ND - Not Detected

NS - Not Sampled

The highest levels of VOCs were detected within SVE-1 at 10-15 feet below grade. Elevated levels were also detected at the depth of the water table (15-20 feet below grade) at MW-2. Trace levels of VOCs were detected within MW-1 and MW-3 and consisted mainly of Methylene Chloride which is a common laboratory contaminant.

The soil sample analytical results indicated that SVOCs were not detectable at MW-2, in the area downgradient of the former waste oil tank. The soil sample analytical results were included as Attachment 3.

Groundwater Sampling Results

LNAPL was not detected within any of the newly installed wells on the subject property. The groundwater sampling results were summarized below in Table 3.

Table 3
Hydrocarbons in Groundwater
Parts Per Billion

<u>Location</u>	<u>Benzene</u>	<u>MtBE</u>	<u>Total VOCs</u>	<u>Total SVOCs</u>
MW-1	17	890	927.82	NS
MW-2	63	75	14066	NS
MW-3	95	930	1577.5	NS
MW-4	ND	4000	4135.4	ND
SVE-1	3800	490	21169.4	NS
HVE-1	ND	2800	2804.9	ND

Key:

VOCs - Volatile Organic Compounds - EPA 8260

SVOCs - Semivolatile Organic Compounds - EPA 8270

MtBE - Methyl Tertiary Butyl Ether

ND - Not Detected

NS - Not Sampled

The highest levels of dissolved VOCs and Benzene were detected within groundwater at SVE-1. The NYS DEC groundwater standard for Benzene is 1 part per billion (ppb). Elevated dissolved VOC levels were also detected within MW-2, located down-gradient of the former gasoline UST area.

Lower levels of total VOCs were detected within MW-1, MW-3, MW-4, and HVE-1 and were composed almost entirely of MtBE. The NYS DEC groundwater standard for MtBE is 10 ppb.

SVOCs were not detected within the groundwater at MW-4 and HVE-1, located down-gradient and within the former waste oil tank area, respectively.

The groundwater sample analytical results were included as Attachment 4. The estimated distribution of total dissolved VOCs was depicted in Figure 3.

CONCLUSIONS

Based on the results of this investigation, Pressly & Associates, Inc. has concluded the following:

- The regional direction of groundwater flow was determined to be northwest. However, groundwater mounding within the former gasoline UST area was likely the result of pavement removal from this area during the previous UST and soil removal. The pavement would have prevented preferential rainwater infiltration into the subsurface, which would cause the mounding to occur. In addition, rainwater infiltration was likely expedited by the replacement of native soils with more permeable fill material.
- A subsurface release was not detected in soil or groundwater within the former waste oil UST area. The presence of LNAPL within former monitoring well SB-7 appeared to be an anomaly. It is possible that this may have been caused by the penetration of an isolated pocket of oil/sludge during the drilling of SB-7. Random urban fill (incl. stone, wood, metal) was observed at the location of SB-7 during this investigation.

- The elevated levels of VOCs detected at SVE-1 corresponded to the property owner's description of a historic fill line for the gasoline USTs, which entered the property from the sidewalk proximate to SVE-1. The relatively lower level of dissolved VOCs in groundwater at MW-2, as compared with SVE-1, indicates that the source area was likely located within an up-gradient location of the site, proximate to the sidewalk.
- The distribution of MtBE within groundwater indicated that the leading edge of the plume has spread cross-gradient as a result of the groundwater mounding observed beneath the site. The relatively low levels of MtBE at SVE-1 and MW-2 indicated that this compound has already migrated beyond these locations due to its high mobility, as compared with all other VOCs within the plume.
- Historic groundwater sampling results reported at temporary well SB-10 (Total VOCs 34.25 ppb) in September 2010 was composed almost entirely of trace levels of MtBE (29.7 ppb). Although MtBE levels at SB-10 have likely increased since 2010, this location represented the down-gradient extent of the plume at that time.
- Future well drilling may not be possible to the southeast of MW-3 due to the presence of urban fill containing large boulders/concrete beneath the southeastern portion of the subject property.

RECOMMENDATIONS

Based on the results of this investigation, the following is recommended:

- Installation of an additional monitoring well to the northwest in order to further evaluate the extent of MtBE migration in this direction.
- Replacement of the pavement removed from the excavation area in order to prevent further groundwater mounding and resulting lateral MtBE migration on the subject property.
- Several soil vapor extraction (SVE) and air sparge (AS) wells were installed as part of this investigation based on field observations and PID results. Additional SVE/AS wells are recommended in order to address the presence of MtBE in perimeter wells, which was not detected in the field.
- Installation of a SVE/AS system in order to remove VOCs detected within soil and groundwater at the site.

Proposed additional monitoring and remediation well locations were depicted on Figure 4. A preliminary remedial system layout including existing and proposed SVE/AS wells was depicted on Figure 5.

We look forward to your comments regarding the results of this investigation and preliminary remedial system layout. In the meantime, if you have any questions, please do not hesitate to call me at 607-264-9521.

Sincerely,



Nicholas Pressly
Environmental Projects Manager

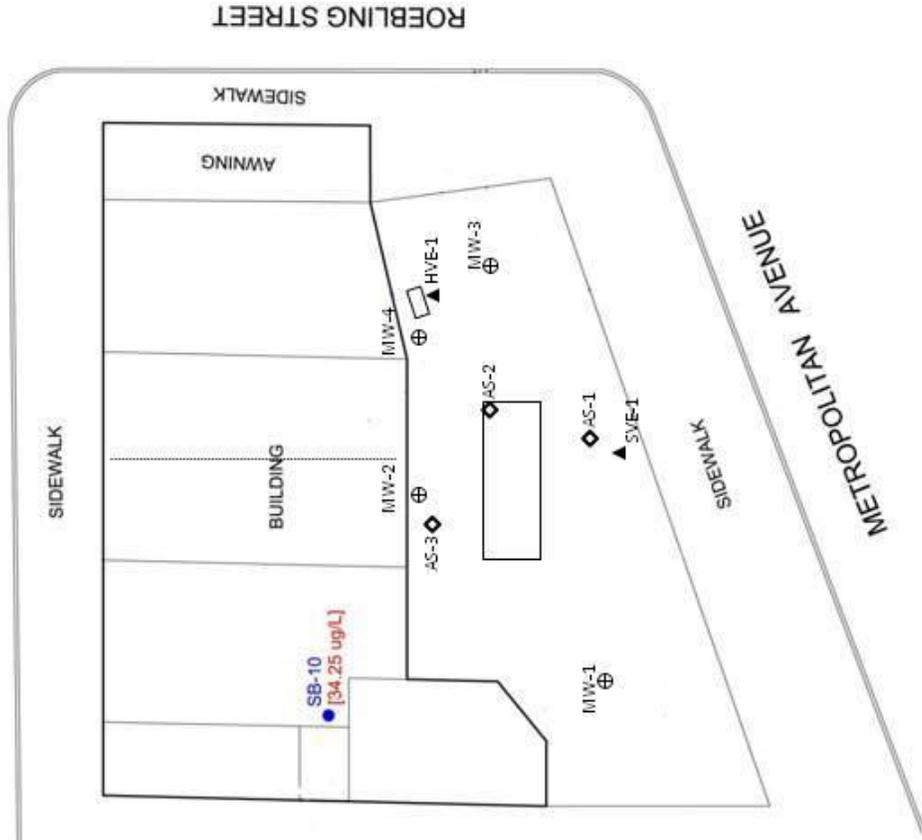
Cc: Jerrietta Hollinger

FIGURES

- 1. Site Map**
- 2. Groundwater Contour Map**
- 3. Hydrocarbon Distribution Map**
- 4. Proposed Supplemental Well Locations**
- 5. Preliminary Remedial System Layout**

Figure 1
Site Map

N 4th STREET



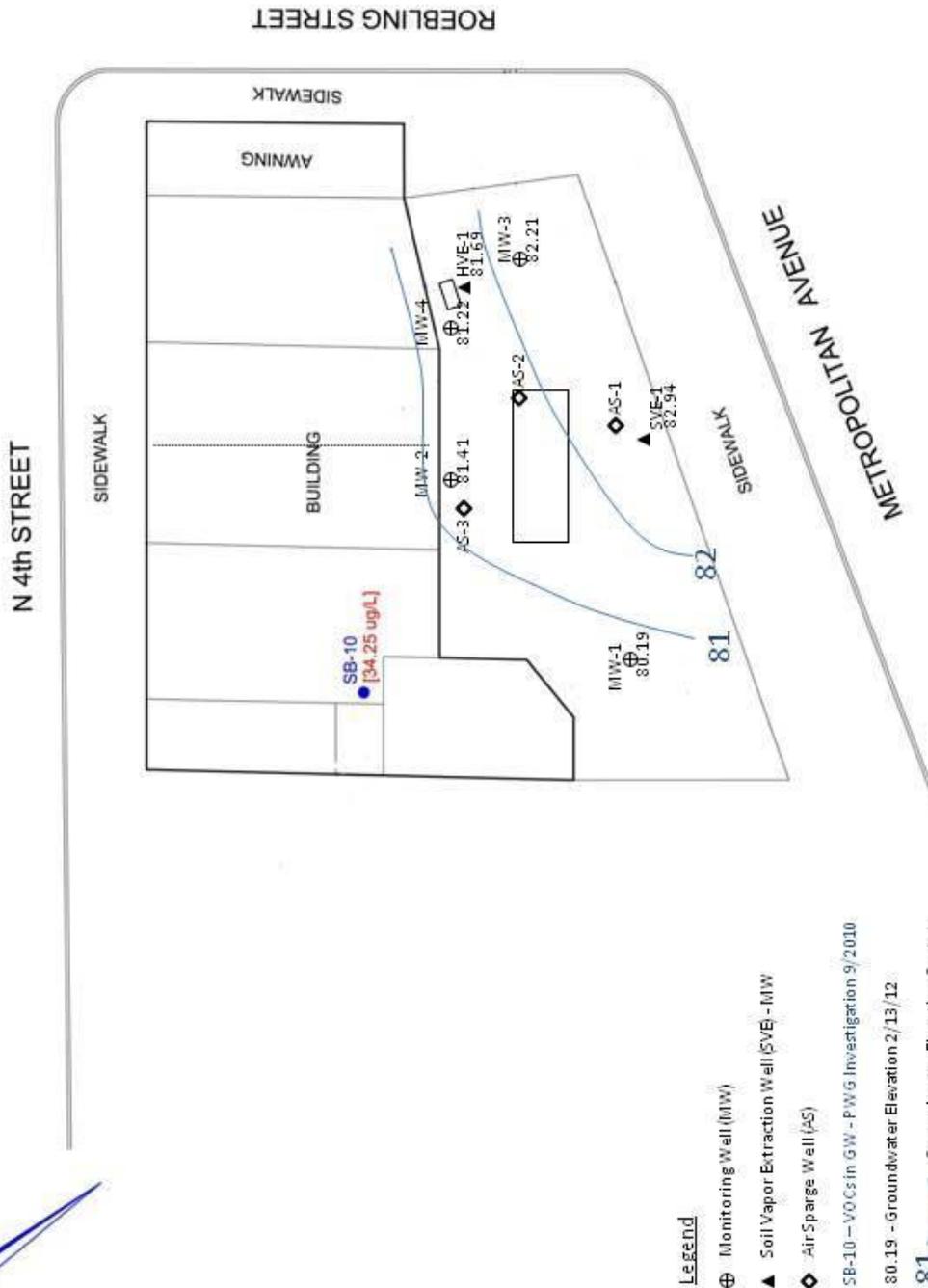
Legend

- ⊕ Monitoring Well (MW)
- ▲ Soil Vapor Extraction Well (SVE) - MW
- ◇ Air Sparge Well (AS)

SB-10 — VOCs in GW - PWG Investigation 9/2010



Figure 2
Groundwater Contour Map

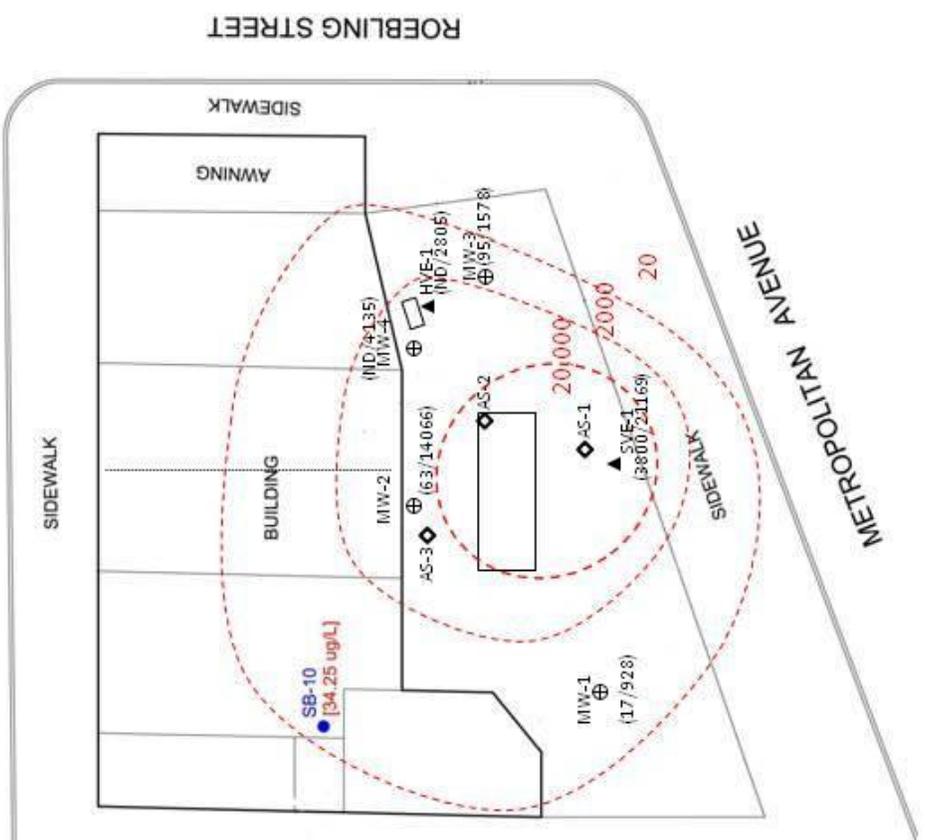


- Legend**
- ⊕ Monitoring Well (MW)
 - ▲ Soil Vapor Extraction Well (SVE) - MW
 - ◇ Air-Sparger Well (AS)
 - SB-10 - VOCs in GW - PWG Investigation 9/2010
 - 80.19 - Groundwater Elevation 2/13/12
 - 81 Groundwater Elevation Contour





Figure 3
Hydrocarbon Distribution Map (ppb)
N 4th STREET



- Legend**
- ⊕ Monitoring Well (MW)
 - ▲ Soil Vapor Extraction Well (SVE) - MW
 - ◇ Air-Sparger Well (AS)
 - (17/928) – Benzene/Total VOCs – 2/13/12
 - SB-10 – VOCs in GW - PW/G Investigation 9/2010
 - 20- - - - - Inferred Total VOC Distribution (ppb)

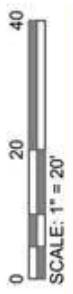
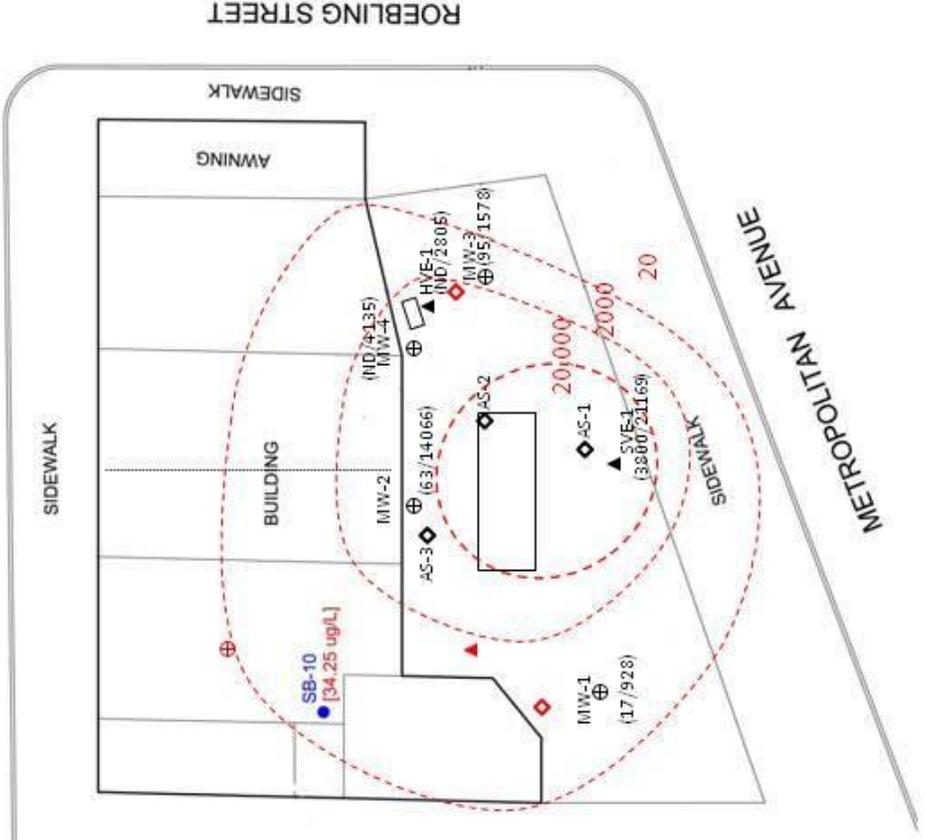
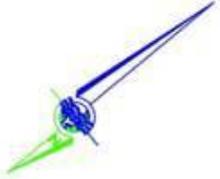


Figure 4
Proposed Additional MW/SVE/AS Wells
N 4th STREET



- Legend**
- ⊕ Monitoring Well (MW)
 - ▲ Soil Vapor Extraction Well (SVE) - MW (17/928) – Benzene/Total VOCs – 2/13/12
 - ◆ Air Sparge Well (AS)
 - SB-10 – VOCs in GW - PW/G Investigation 9/2010
 - 20- - - - - Inferred Total VOC Distribution (ppb)
 - ⊕ Proposed Additional Monitoring Well (MW)
 - ▲ Proposed Additional SVE Well
 - ◆ Proposed Additional AS Well

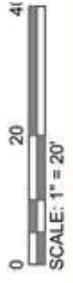
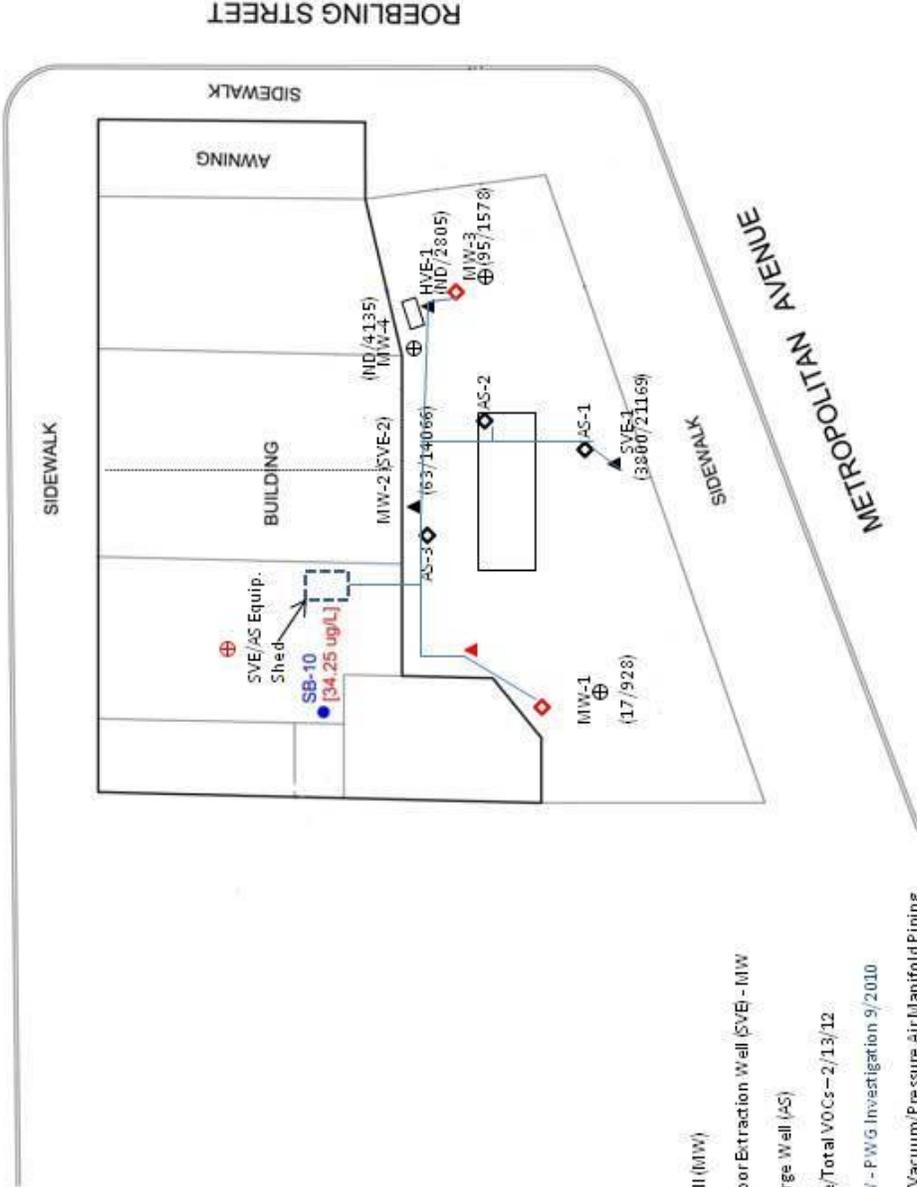
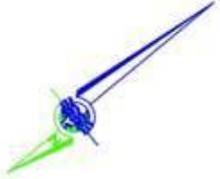
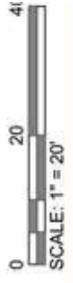


Figure 5
Proposed SVE/AS Layout
N 4th STREET



- Legend**
- ⊕ Monitoring Well (MW)
 - ▲ Existing Soil Vapor Extraction Well (SVE) - MW
 - ◆ Existing Air Sparge Well (AS)
 - (17/928) - Benzene/Total VOCs - 2/13/12
 - SB-10 - VOCs in GW - PW's Investigation 9/2010
 - Proposed Vacuum/Pressure Air Manifold Piping
 - ⊕ Proposed Additional Monitoring Well (MW)
 - ▲ Proposed Additional SVE Well
 - ◆ Proposed Additional AS Well



ATTACHMENTS

- 1. Boring Logs**
- 2. Well Gauging Data**
- 3. Soil Sample Analytical Report**
- 4. Groundwater Sample Analytical Report**

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID **MW-1**
 Date Drilled **2/6/2012**
 Driller **Tristate Drilling Technologies**
 Rig Type **Geoprobe w/HAS**

Sampling Method **5-foot MC**
 Geologist: **Pressly**

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail		
1	0-5	ND	grey/brown f-m sand and gravel	Concrete	6-inch manhole	
2				Fill		
3				Bent.		
4				Seal		2-inch PVC casing
5	5-10	ND	red f-m sand into tan fine sand @ 5.7	Silica Sandpack	2-inch PVC casing	
6						
7						
8						
9						
10	10-15	ND	red f-m sand, slightly moist	Silica Sandpack	2-inch PVC casing	
11						
12						
13						
14	15-20	ND	tan/red f-m sand, some silt sat. @ 20'	Silica Sandpack	2-inch PVC casing	
15						
16						
17						
18						
19						
20	20-25	ND	tan/red f-m sand, some coarse sand	Silica Sandpack	2-inch PVC casing	0.01 slot screen
21						
22						
23						
24						
25						
26						
27						
28						
28						
29						
30						
31						
32						
33						
34						
35						
36						

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID **MW-1**
 Date Drilled **2/6/2012**
 Driller **Tristate Drilling Technologies**
 Rig Type **Geoprobe w/HAS**

Sampling Method **5-foot MC**
 Geologist: **Pressly**

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail			
				Concrete	6-inch		
1	0-5	no rec.		Concrete	6-inch		
2				Fill		manhole	
3				Bent.			
4				Seal		2-inch	
5	5-10	ND	orange f-m sand some silt/clay lenses	Silica	PVC		
6						Sandpack	casing
7							
8							
9							
10	10-15	ND	orange f-m sand some silt/clay lenses				
11							
12							
13							
14	15-20	113	orange f-m sand some silt/clay lenses into med sand d.grey/black @19'	Silica	PVC		
15						Sandpack	
16							
17							
18							
19							
20	20-25	no rec.	refusal large boulder @24' saturated	Silica	PVC		0.01 slot
21						Sandpack	screen
22							
23							
24							
25							
28							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID **MW-3**
 Date Drilled **2/7/2012**
 Driller **Tristate Drilling Technologies**
 Rig Type **Geoprobe w/HAS**

Sampling Method **5-foot MC**
 Geologist: **Pressly**

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail		
				Concrete	6-inch	
1	0-5	ND	fill/tan orange sand and gravel	Concrete	manhole	
2				Fill		
3				Bent.		
4				Seal		
5	5-10	ND	orange/tan f-m sand, some silt/clay	Silica Sandpack	2-inch PVC casing	
6						
7						
8						
9						
10	10-15	ND	orange/tan f-m sand, some silt/clay	Silica Sandpack	2-inch PVC casing	
11						
12						
13						
14	15-20	ND	red f-m sand, some silt saturated	Silica Sandpack	2-inch PVC casing	
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27		Depth to bottom 28'				
28						
29						
30						
31						
32						
33						
34						
35						
36						

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID **MW-4**
 Date Drilled **2/7/12**
 Driller **Tristate Drilling Technologies**
 Rig Type **Geoprobe w/HAS**

Sampling Method **5-foot MC**
 Geologist: **Pressly**

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail		
				Concrete	6-inch	
1	0-5	no rec.	urban fill/boulders	Concrete	manhole	
2				Fill		
3				Bent.		
4				Seal		1-inch
5	5-10	ND	olive/grey f sand some silt into orange fine sand @8.5' boulders		PVC casing	
6						
7						
8						
9						
10				10-15		ND
11	Sandpack					
12						
13						
14	15-20	ND	orange med. Sand some f-sand and gravel grey/black oil stain @19-19.3'			
15						
16						
17						
18						
19						0.01 slot
20						screen
21						
22						
23						
24						
25			Depth to bottom 25			
28						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID SVE-1
 Date Drilled 2/7/2012
 Driller Tristate Drilling Technologies
 Rig Type Geoprobe w/HAS

Sampling Method 5-foot MC
 Geologist: Pressly

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail			
				Concrete	6-inch		
1	0-5	ND	sand and gravel/fill	Concrete	manhole		
2				Fill			
3				Bent.			
4				Seal		2-inch	
5	5-10	173	grey f-m sand some, silt and clay	Silica	PVC	casing	
6							
7							
8							
9							
10	10-15	332	grey f-m sand some, silt and clay into orange f-m sand some silt/clay	Sandpack			
11							
12							
13							
14	15-20	227	orange f-m sand some grey silt saturated refusal @17' move over 2 feet red med-coarse sand @19' saturated refusal at 22' depth to bottom 22'				
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
28							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID HVE-1
 Date Drilled 2/8/12
 Driller Tristate Drilling Technologies
 Rig Type Geoprobe w/HAS

Sampling Method NA
 Geologist: Pressly

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail		
1				Concrete	6-inch	
2				Fill	manhole	
3				Bent.		
4				Seal	2-inch	
5					PVC	
6					casing	
7						
8						
9						
10						
11				Silica		
12				Sandpack		
13						
14						
15						
16						
17						
18						
19						
20					0.01 slot	
21					screen	
22						
23						
24						
25						
28						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID	<u>AS-1</u>	Sampling Method	<u>NA</u>
Date Drilled	2/8/12	Geologist:	Pressly
Driller	Tristate Drilling Technologies		
Rig Type	Geoprobe w/HAS		

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail		
1				Concrete	6-inch manhole	
2				Fill		
3				Bent.		
4				Seal	2-inch PVC casing	
5						
6						
7						
8						
9						
10				Fill		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25				Bent.		
26				Seal		
27						
28				Silica		
29			Screen 28-30'	Sandpack	0.01 slot screen	
30			Depth to bottom 30'			
31						
32						
33						
34						
35						
36						

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID	<u>AS-1</u>	Sampling Method	<u>NA</u>
Date Drilled	2/8/12	Geologist:	Pressly
Driller	Tristate Drilling Technologies		
Rig Type	Geoprobe w/HAS		

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail		
1				Concrete	6-inch manhole	
2				Fill		
3				Bent.		
4				Seal	2-inch PVC casing	
5						
6						
7						
8						
9						
10				Fill		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25				Bent.		
26				Seal		
27						
28				Silica		
29			Screen 28-30'	Sandpack	0.01 slot screen	
30			Depth to bottom 30'			
31						
32						
33						
34						
35						
36						

291 Metropolitan Avenue
Soil Boring/Monitoring Well Construction Log

Boring/Well ID
Date Drilled
Driller
Rig Type

AS-3
2/8/12
Tristate Drilling Technologies
Geoprobe w/HAS

Sampling Method NA
Geologist: Pressly

Depth	Sample ID	PID Reading	Soil Description	Well Construction Detail		
1				Concrete	6-inch	
2				Fill	manhole	
3				Bent.		
4				Seal	2-inch	
5					PVC	
6					casing	
7						
8						
9						
10				Fill		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21				Bent.		
22				Seal		
23						
24						
25						
26						
27			Screen 25-27'		0.01 slot	Silica
28			Depth to Bottom - 27'		screen	Sandpack
29						
30						
31						
32						
33						
34						
35						
36						

Technical Report

prepared for:

Pressly & Assoc.
721 County Road #54
Cherry Valley NY, 13320
Attention: Mr. Nick Pressly

Report Date: 02/22/2012
Client Project ID: 291 Metropolitan
York Project (SDG) No.: 12B0406

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA License No. 68-04440

Report Date: 02/22/2012
Client Project ID: 291 Metropolitan
York Project (SDG) No.: 12B0406

Pressly & Assoc.
721 County Road #54
Cherry Valley NY, 13320
Attention: Mr. Nick Pressly

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on February 10, 2012 and listed below. The project was identified as your project: **291 Metropolitan**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
12B0406-01	MW-1 15-20	Soil	02/06/2012	02/10/2012
12B0406-02	MW-2 15-20	Soil	02/06/2012	02/10/2012
12B0406-03	MW-3 15-20	Soil	02/07/2012	02/10/2012
12B0406-04	MW-4 15-20	Soil	02/07/2012	02/10/2012
12B0406-05	SVE-1 10-15	Soil	02/07/2012	02/10/2012

General Notes for York Project (SDG) No.: 12B0406

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Date: 02/22/2012

Robert Q. Bradley
Executive Vice President / Laboratory Director

YORK

Sample Information

Client Sample ID: MW-1 15-20

York Sample ID: 12B0406-01

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	1.3	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.3	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	1.5	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	1.7	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	3.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	1.0	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	0.89	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.7	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	1.2	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	1.3	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.2	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	0.53	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	0.89	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	1.1	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	1.7	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
123-91-1	1,4-Dioxane	ND		ug/kg dry	76	110	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	2.3	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
78-93-3	2-Butanone	ND		ug/kg dry	6.2	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
95-49-8	2-Chlorotoluene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
106-43-4	4-Chlorotoluene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
67-64-1	Acetone	ND		ug/kg dry	7.5	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
71-43-2	Benzene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
108-86-1	Bromobenzene	ND		ug/kg dry	1.5	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
74-97-5	Bromochloromethane	ND		ug/kg dry	3.1	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-27-4	Bromodichloromethane	ND		ug/kg dry	1.5	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-25-2	Bromoform	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
74-83-9	Bromomethane	ND		ug/kg dry	3.0	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.5	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS

Sample Information

Client Sample ID: MW-1 15-20

York Sample ID: 12B0406-01

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-90-7	Chlorobenzene	ND		ug/kg dry	0.84	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-00-3	Chloroethane	ND		ug/kg dry	1.8	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
67-66-3	Chloroform	ND		ug/kg dry	0.86	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
74-87-3	Chloromethane	ND		ug/kg dry	2.1	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.3	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	0.84	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
124-48-1	Dibromochloromethane	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
74-95-3	Dibromomethane	ND		ug/kg dry	3.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.0	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
100-41-4	Ethyl Benzene	ND		ug/kg dry	0.84	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	1.0	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
98-82-8	Isopropylbenzene	ND		ug/kg dry	0.94	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	0.91	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-09-2	Methylene chloride	15	J, B	ug/kg dry	2.5	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
91-20-3	Naphthalene	ND		ug/kg dry	1.2	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
104-51-8	n-Butylbenzene	ND		ug/kg dry	0.77	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
103-65-1	n-Propylbenzene	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
95-47-6	o-Xylene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
1330-20-7P/M	p- & m- Xylenes	2.6	J	ug/kg dry	1.3	22	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	0.60	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
100-42-5	Styrene	ND		ug/kg dry	1.0	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	1.1	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
127-18-4	Tetrachloroethylene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
108-88-3	Toluene	ND		ug/kg dry	0.55	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
79-01-6	Trichloroethylene	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.2	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.3	11	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS
1330-20-7	Xylenes, Total	2.6	J	ug/kg dry	2.5	33	2	EPA SW846-8260B	02/16/2012 18:31	02/16/2012 18:31	SS

Sample Information

Client Sample ID: MW-1 15-20

York Sample ID: 12B0406-01

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	89.9		%	0.100	0.100	1	SM 2540G	02/15/2012 13:10	02/15/2012 13:10	AMC

Sample Information

Client Sample ID: MW-2 15-20

York Sample ID: 12B0406-02

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	68	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	120	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	72	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	76	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	77	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	87	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	170	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	54	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	47	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	140	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	60	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
95-63-6	1,2,4-Trimethylbenzene	6700		ug/kg dry	67	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	170	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	86	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	74	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	82	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	28	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
108-67-8	1,3,5-Trimethylbenzene	3700		ug/kg dry	47	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	59	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	87	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	86	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
123-91-1	1,4-Dioxane	ND		ug/kg dry	4000	5800	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	120	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
78-93-3	2-Butanone	ND		ug/kg dry	320	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
95-49-8	2-Chlorotoluene	ND		ug/kg dry	62	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS

Sample Information

Client Sample ID: MW-1 15-20

York Sample ID: 12B0406-01

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	89.9		%	0.100	0.100	1	SM 2540G	02/15/2012 13:10	02/15/2012 13:10	AMC

Sample Information

Client Sample ID: MW-2 15-20

York Sample ID: 12B0406-02

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	68	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	120	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	72	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	76	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	77	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	87	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	170	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	54	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	47	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	140	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	60	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
95-63-6	1,2,4-Trimethylbenzene	6700		ug/kg dry	67	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	170	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	86	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	74	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	82	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	28	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
108-67-8	1,3,5-Trimethylbenzene	3700		ug/kg dry	47	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	59	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	87	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	86	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
123-91-1	1,4-Dioxane	ND		ug/kg dry	4000	5800	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	120	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
78-93-3	2-Butanone	ND		ug/kg dry	320	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
95-49-8	2-Chlorotoluene	ND		ug/kg dry	62	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS

Sample Information

Client Sample ID: MW-2 15-20

York Sample ID: 12B0406-02

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-43-4	4-Chlorotoluene	ND		ug/kg dry	62	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
67-64-1	Acetone	490	J, B	ug/kg dry	390	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
71-43-2	Benzene	ND		ug/kg dry	60	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
108-86-1	Bromobenzene	ND		ug/kg dry	77	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
74-97-5	Bromochloromethane	ND		ug/kg dry	160	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-27-4	Bromodichloromethane	ND		ug/kg dry	78	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-25-2	Bromoform	ND		ug/kg dry	73	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
74-83-9	Bromomethane	ND		ug/kg dry	160	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	130	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
108-90-7	Chlorobenzene	ND		ug/kg dry	44	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-00-3	Chloroethane	ND		ug/kg dry	96	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
67-66-3	Chloroform	ND		ug/kg dry	45	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
74-87-3	Chloromethane	ND		ug/kg dry	110	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	120	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	44	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
124-48-1	Dibromochloromethane	ND		ug/kg dry	84	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
74-95-3	Dibromomethane	ND		ug/kg dry	170	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	100	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
100-41-4	Ethyl Benzene	160	J	ug/kg dry	44	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	54	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
98-82-8	Isopropylbenzene	ND		ug/kg dry	49	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	48	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-09-2	Methylene chloride	880	J, B	ug/kg dry	130	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
91-20-3	Naphthalene	2800		ug/kg dry	63	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
104-51-8	n-Butylbenzene	780		ug/kg dry	40	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
103-65-1	n-Propylbenzene	410	J	ug/kg dry	73	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
95-47-6	o-Xylene	520	J	ug/kg dry	63	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
1330-20-7P/M	p- & m- Xylenes	1000	J	ug/kg dry	69	1200	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
99-87-6	p-Isopropyltoluene	300	J	ug/kg dry	31	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	65	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
100-42-5	Styrene	ND		ug/kg dry	54	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	58	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
127-18-4	Tetrachloroethylene	ND		ug/kg dry	65	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
108-88-3	Toluene	ND		ug/kg dry	29	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	82	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS

Sample Information

Client Sample ID: MW-2 15-20

York Sample ID: 12B0406-02

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 6, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatiles Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	86	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
79-01-6	Trichloroethylene	ND		ug/kg dry	72	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	110	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
75-01-4	Vinyl Chloride	ND		ug/kg dry	120	580	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS
1330-20-7	Xylenes, Total	1600	J	ug/kg dry	130	1700	100	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 17:33	SS

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	85.8		%	0.100	0.100	1	SM 2540G	02/15/2012 13:15	02/15/2012 13:15	AMC

Sample Information

Client Sample ID: MW-3 15-20

York Sample ID: 12B0406-03

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatiles Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	1.3	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.3	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	1.5	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	1.5	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	1.7	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	3.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	1.0	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	0.90	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.8	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	1.2	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	1.3	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.2	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	1.7	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS

Sample Information

Client Sample ID: MW-3 15-20

York Sample ID: 12B0406-03

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	0.53	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	0.90	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	1.1	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	1.7	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	1.7	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
123-91-1	1,4-Dioxane	ND		ug/kg dry	77	110	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	2.3	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
78-93-3	2-Butanone	ND		ug/kg dry	6.3	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
95-49-8	2-Chlorotoluene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
106-43-4	4-Chlorotoluene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
67-64-1	Acetone	ND		ug/kg dry	7.6	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
71-43-2	Benzene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
108-86-1	Bromobenzene	ND		ug/kg dry	1.5	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
74-97-5	Bromochloromethane	ND		ug/kg dry	3.1	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-27-4	Bromodichloromethane	ND		ug/kg dry	1.5	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-25-2	Bromoform	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
74-83-9	Bromomethane	ND		ug/kg dry	3.0	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.5	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
108-90-7	Chlorobenzene	ND		ug/kg dry	0.85	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-00-3	Chloroethane	ND		ug/kg dry	1.8	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
67-66-3	Chloroform	ND		ug/kg dry	0.88	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
74-87-3	Chloromethane	ND		ug/kg dry	2.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.3	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	0.85	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
124-48-1	Dibromochloromethane	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
74-95-3	Dibromomethane	ND		ug/kg dry	3.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.0	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
100-41-4	Ethyl Benzene	ND		ug/kg dry	0.85	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	1.0	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
98-82-8	Isopropylbenzene	ND		ug/kg dry	0.95	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	0.92	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-09-2	Methylene chloride	18	J, B	ug/kg dry	2.6	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
91-20-3	Naphthalene	ND		ug/kg dry	1.2	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
104-51-8	n-Butylbenzene	ND		ug/kg dry	0.78	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
103-65-1	n-Propylbenzene	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS

Sample Information

Client Sample ID: MW-3 15-20

York Sample ID: 12B0406-03

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-47-6	o-Xylene	ND		ug/kg dry	1.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
1330-20-7P/M	p- & m- Xylenes	2.4	J	ug/kg dry	1.3	23	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	0.61	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	1.3	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
100-42-5	Styrene	ND		ug/kg dry	1.0	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	1.1	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
127-18-4	Tetrachloroethylene	ND		ug/kg dry	1.3	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
108-88-3	Toluene	ND		ug/kg dry	0.56	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	1.6	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	1.7	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
79-01-6	Trichloroethylene	ND		ug/kg dry	1.4	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.2	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.4	11	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS
1330-20-7	Xylenes, Total	ND		ug/kg dry	2.6	34	2	EPA SW846-8260B	02/16/2012 19:08	02/16/2012 19:08	SS

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	88.8		%	0.100	0.100	1	SM 2540G	02/15/2012 13:15	02/15/2012 13:15	AMC

Sample Information

Client Sample ID: MW-4 15-20

York Sample ID: 12B0406-04

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	102	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	82.1	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	89.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	64.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	51.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	91.7	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	76.6	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	60.1	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD

Sample Information

Client Sample ID: MW-4 15-20

York Sample ID: 12B0406-04

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	157	375	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	82.1	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	89.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	57.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
95-57-8	2-Chlorophenol	ND		ug/kg dry	109	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	65.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
95-48-7	2-Methylphenol	ND		ug/kg dry	69.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
88-75-5	2-Nitrophenol	ND		ug/kg dry	64.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
100-01-6	3- & 4-Methylphenols	ND		ug/kg dry	84.4	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
91-94-1	3,3'-Dichlorobenzidine	ND		ug/kg dry	47.2	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
99-09-2	3-Nitroaniline	ND		ug/kg dry	68.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	142	375	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	78.2	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	20.2	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
106-47-8	4-Chloroaniline	ND		ug/kg dry	74.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	54.1	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
100-02-7	4-Nitroaniline	ND		ug/kg dry	62.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
56-57-5	4-Nitrophenol	ND		ug/kg dry	67.8	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
83-32-9	Acenaphthene	ND		ug/kg dry	109	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
208-96-8	Acenaphthylene	ND		ug/kg dry	52.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
62-53-3	Aniline	ND		ug/kg dry	67.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
120-12-7	Anthracene	ND		ug/kg dry	46.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	72.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	48.9	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	71.4	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	56.4	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	72.6	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
100-51-6	Benzyl alcohol	ND		ug/kg dry	60.7	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
85-68-7	Benzyl butyl phthalate	ND		ug/kg dry	78.2	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	69.1	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	63.7	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	69.7	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/kg dry	62.8	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
218-01-9	Chrysene	ND		ug/kg dry	75.6	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	47.4	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD

Sample Information

Client Sample ID: MW-4 15-20

York Sample ID: 12B0406-04

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
132-64-9	Dibenzofuran	ND		ug/kg dry	60.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
84-66-2	Diethyl phthalate	ND		ug/kg dry	98.4	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
131-11-3	Dimethyl phthalate	ND		ug/kg dry	54.1	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	56.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	84.4	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
206-44-0	Fluoranthene	ND		ug/kg dry	109	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
86-73-7	Fluorene	ND		ug/kg dry	52.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
118-74-1	Hexachlorobenzene	ND		ug/kg dry	30.6	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	75.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	139	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
67-72-1	Hexachloroethane	ND		ug/kg dry	67.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	69.1	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
78-59-1	Isophorone	ND		ug/kg dry	69.7	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
91-20-3	Naphthalene	ND		ug/kg dry	56.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
98-95-3	Nitrobenzene	ND		ug/kg dry	84.4	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	67.8	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	48.9	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	109	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
87-86-5	Pentachlorophenol	ND		ug/kg dry	52.5	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
85-01-8	Phenanthrene	ND		ug/kg dry	69.2	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
108-95-2	Phenol	ND		ug/kg dry	75.0	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
129-00-0	Pyrene	ND		ug/kg dry	67.3	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD
110-86-1	Pyridine	ND		ug/kg dry	73.2	187	1	EPA SW-846 8270C	02/20/2012 15:10	02/22/2012 07:49	TD

Sample Information

Client Sample ID: MW-4 15-20

York Sample ID: 12B0406-04

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	88.9		%	0.100	0.100	1	SM 2540G	02/15/2012 13:15	02/15/2012 13:15	AMC

Sample Information

Client Sample ID: SVE-1 10-15

York Sample ID: 12B0406-05

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	130	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	220	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	130	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	140	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	140	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	160	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	310	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	100	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	87	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	270	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	110	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
95-63-6	1,2,4-Trimethylbenzene	32000		ug/kg dry	130	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	310	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	160	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	140	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	150	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	52	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
108-67-8	1,3,5-Trimethylbenzene	27000		ug/kg dry	87	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	110	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	160	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	160	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
123-91-1	1,4-Dioxane	ND		ug/kg dry	7500	11000	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	230	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
78-93-3	2-Butanone	ND		ug/kg dry	610	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
95-49-8	2-Chlorotoluene	ND		ug/kg dry	120	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS

Sample Information

Client Sample ID: SVE-1 10-15

York Sample ID: 12B0406-05

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-43-4	4-Chlorotoluene	ND		ug/kg dry	120	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
67-64-1	Acetone	1000	J, B	ug/kg dry	730	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
71-43-2	Benzene	ND		ug/kg dry	110	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
108-86-1	Bromobenzene	ND		ug/kg dry	140	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
74-97-5	Bromochloromethane	ND		ug/kg dry	300	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-27-4	Bromodichloromethane	ND		ug/kg dry	150	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-25-2	Bromoform	ND		ug/kg dry	140	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
74-83-9	Bromomethane	ND		ug/kg dry	290	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	250	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
108-90-7	Chlorobenzene	ND		ug/kg dry	83	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-00-3	Chloroethane	ND		ug/kg dry	180	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
67-66-3	Chloroform	ND		ug/kg dry	85	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
74-87-3	Chloromethane	ND		ug/kg dry	210	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	230	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	83	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
124-48-1	Dibromochloromethane	ND		ug/kg dry	160	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
74-95-3	Dibromomethane	ND		ug/kg dry	310	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	200	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
100-41-4	Ethyl Benzene	4000		ug/kg dry	83	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	100	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
98-82-8	Isopropylbenzene	870	J	ug/kg dry	92	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	90	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-09-2	Methylene chloride	1400	J, B	ug/kg dry	250	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
91-20-3	Naphthalene	7400		ug/kg dry	120	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
104-51-8	n-Butylbenzene	2600		ug/kg dry	76	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
103-65-1	n-Propylbenzene	3100		ug/kg dry	140	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
95-47-6	o-Xylene	9600		ug/kg dry	120	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
1330-20-7P/M	p- & m- Xylenes	21000		ug/kg dry	130	2200	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
99-87-6	p-Isopropyltoluene	1300		ug/kg dry	59	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
135-98-8	sec-Butylbenzene	440	J	ug/kg dry	120	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
100-42-5	Styrene	ND		ug/kg dry	100	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	110	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
127-18-4	Tetrachloroethylene	ND		ug/kg dry	120	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
108-88-3	Toluene	1200		ug/kg dry	54	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	150	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS

Sample Information

Client Sample ID: SVE-1 10-15

York Sample ID: 12B0406-05

<u>York Project (SDG) No.</u> 12B0406	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Soil	<u>Collection Date/Time</u> February 7, 2012 3:00 pm	<u>Date Received</u> 02/10/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	160	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
79-01-6	Trichloroethylene	ND		ug/kg dry	130	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	210	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
75-01-4	Vinyl Chloride	ND		ug/kg dry	230	1100	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS
1330-20-7	Xylenes, Total	30000		ug/kg dry	250	3300	200	EPA SW846-8260B	02/17/2012 10:46	02/17/2012 18:08	SS

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	% Solids	91.4		%	0.100	0.100	1	SM 2540G	02/15/2012 13:15	02/15/2012 13:15	AMC

Notes and Definitions

- QL-02 This LCS analyte is outside Laboratory Recovery limits due to the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
- J Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration.
- B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.

ND Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

MDL METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

Corrective Action:

YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615
 TEL: (203) 325-1371 FAX: (203) 357-0166

Field Chain-of-Custody Record

Page ___ of ___

12B0406

Company Name: Pressly & Assoc. Report To: N.I.Z. Invoice To: N.I.Z. Project ID/No.: 291 Metropolitan

Samples Collected By (Signature): [Signature]
 Name (Printed): Nicholas Pressly

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)
			Water	Soil	Air		
MW-1	15-20	2/6	✓			EPA 8260	1 4oz
MW-2	15-20	2/6	✓			EPA 8260	"
MW-3	15-20	2/7	✓			EPA 8260	"
MW-4	15-20	2/7	✓			* EPA 8270	1 4oz
SUE-1	10-15	2/7	✓			EPA 8260	"

Chain-of-Custody Record

Bottles Relinquished from Lab by: [Signature] Date/Time: 2/9/12

Bottles Received in Field by: [Signature] Date/Time: 2/10/12-1420

Comments/Special Instructions: 5.4°C Turn-Around Time Standard RUSH(define)

Technical Report

prepared for:

Pressly & Assoc.
721 County Road #54
Cherry Valley NY, 13320
Attention: Mr. Nick Pressly

Report Date: 03/01/2012
Client Project ID: 291 Metropolitan
York Project (SDG) No.: 12B0710

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA License No. 68-04440

Report Date: 03/01/2012
Client Project ID: 291 Metropolitan
York Project (SDG) No.: 12B0710

Pressly & Assoc.
721 County Road #54
Cherry Valley NY, 13320
Attention: Mr. Nick Pressly

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on February 22, 2012 and listed below. The project was identified as your project: **291 Metropolitan**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
12B0710-01	MW-1	Water	02/15/2012	02/22/2012
12B0710-02	MW-2	Water	02/15/2012	02/22/2012
12B0710-03	MW-3	Water	02/15/2012	02/22/2012
12B0710-04	MW-4	Water	02/15/2012	02/22/2012
12B0710-05	HVE-1	Water	02/15/2012	02/22/2012
12B0710-06	SVE-1	Water	02/15/2012	02/22/2012

General Notes for York Project (SDG) No.: 12B0710

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Date: 03/01/2012

Robert Q. Bradley
Executive Vice President / Laboratory Director

YORK

Sample Information

Client Sample ID: MW-1

York Sample ID: 12B0710-01

York Project (SDG) No. 12B0710	Client Project ID 291 Metropolitan	Matrix Water	Collection Date/Time February 15, 2012 3:00 pm	Date Received 02/22/2012
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Volatiles Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.54	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.95	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.57	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.60	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.61	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
75-34-3	1,1-Dichloroethane	ND		ug/L	0.69	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
75-35-4	1,1-Dichloroethylene	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.37	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
96-18-4	1,2,3-Trichloropropane	ND		ug/L	1.1	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.48	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	1.3	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
106-93-4	1,2-Dibromoethane	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.59	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
107-06-2	1,2-Dichloroethane	ND		ug/L	0.65	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
78-87-5	1,2-Dichloropropane	ND		ug/L	0.22	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.47	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
142-28-9	1,3-Dichloropropane	ND		ug/L	0.69	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
594-20-7	2,2-Dichloropropane	ND		ug/L	0.96	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
78-93-3	2-Butanone	ND		ug/L	2.6	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
95-49-8	2-Chlorotoluene	ND		ug/L	0.49	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
106-43-4	4-Chlorotoluene	ND		ug/L	0.49	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
67-64-1	Acetone	7.0	J, B	ug/L	3.1	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
71-43-2	Benzene	17		ug/L	0.48	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
108-86-1	Bromobenzene	ND		ug/L	0.61	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
74-97-5	Bromochloromethane	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
75-27-4	Bromodichloromethane	ND		ug/L	0.62	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
75-25-2	Bromoform	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
74-83-9	Bromomethane	ND		ug/L	1.2	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
56-23-5	Carbon tetrachloride	ND		ug/L	1.0	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
108-90-7	Chlorobenzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR

Sample Information

Client Sample ID: MW-1

York Sample ID: 12B0710-01

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	0.76	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
67-66-3	Chloroform	ND		ug/L	0.36	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.96	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
124-48-1	Dibromochloromethane	ND		ug/L	0.67	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
74-95-3	Dibromomethane	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.83	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
98-82-8	Isopropylbenzene	0.83	J	ug/L	0.39	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
1634-04-4	Methyl tert-butyl ether (MTBE)	890		ug/L	7.6	100	20	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 19:46	SR
75-09-2	Methylene chloride	6.2	J, B	ug/L	1.1	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
91-20-3	Naphthalene	0.94	J	ug/L	0.50	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
1330-20-7P/M	p- & m- Xylenes	0.75	J	ug/L	0.55	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
99-87-6	p-Isopropyltoluene	2.2	J	ug/L	0.25	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
135-98-8	sec-Butylbenzene	1.9	J	ug/L	0.52	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
100-42-5	Styrene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
98-06-6	tert-Butylbenzene	1.0	J	ug/L	0.46	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
127-18-4	Tetrachloroethylene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.65	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
79-01-6	Trichloroethylene	ND		ug/L	0.57	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
75-69-4	Trichlorofluoromethane	ND		ug/L	0.91	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
75-01-4	Vinyl Chloride	ND		ug/L	0.97	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR
1330-20-7	Xylenes, Total	ND		ug/L	1.0	15	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 07:58	SR

Sample Information

Client Sample ID: MW-2

York Sample ID: 12B0710-02

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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120 RESEARCH DRIVE

STRATFORD, CT 06615

(203) 325-1371

FAX (203) 357-0166

Sample Information

Client Sample ID: MW-2

York Sample ID: 12B0710-02

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	5.4	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
71-55-6	1,1,1-Trichloroethane	ND		ug/L	9.5	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	6.0	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
79-00-5	1,1,2-Trichloroethane	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-34-3	1,1-Dichloroethane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-35-4	1,1-Dichloroethylene	ND		ug/L	13	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
563-58-6	1,1-Dichloropropylene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	3.7	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
96-18-4	1,2,3-Trichloropropane	ND		ug/L	11	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	4.8	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
95-63-6	1,2,4-Trimethylbenzene	1500		ug/L	13	120	25	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 20:22	SR
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	13	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
106-93-4	1,2-Dibromoethane	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	5.9	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
107-06-2	1,2-Dichloroethane	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
78-87-5	1,2-Dichloropropane	ND		ug/L	2.2	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
108-67-8	1,3,5-Trimethylbenzene	910		ug/L	3.7	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	4.7	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
142-28-9	1,3-Dichloropropane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
594-20-7	2,2-Dichloropropane	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
78-93-3	2-Butanone	ND		ug/L	26	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
95-49-8	2-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
106-43-4	4-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
67-64-1	Acetone	ND		ug/L	31	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
71-43-2	Benzene	63		ug/L	4.8	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
108-86-1	Bromobenzene	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
74-97-5	Bromochloromethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-27-4	Bromodichloromethane	ND		ug/L	6.2	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-25-2	Bromoform	ND		ug/L	5.8	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
74-83-9	Bromomethane	ND		ug/L	12	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
56-23-5	Carbon tetrachloride	ND		ug/L	10	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
108-90-7	Chlorobenzene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR

Sample Information

Client Sample ID: MW-2

York Sample ID: 12B0710-02

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	7.6	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
67-66-3	Chloroform	ND		ug/L	3.6	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
74-87-3	Chloromethane	ND		ug/L	8.9	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
124-48-1	Dibromochloromethane	ND		ug/L	6.7	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
74-95-3	Dibromomethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-71-8	Dichlorodifluoromethane	ND		ug/L	8.3	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
100-41-4	Ethyl Benzene	1600		ug/L	3.5	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
98-82-8	Isopropylbenzene	150		ug/L	3.9	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
1634-04-4	Methyl tert-butyl ether (MTBE)	75		ug/L	3.8	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-09-2	Methylene chloride	35	J, B	ug/L	11	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
91-20-3	Naphthalene	960		ug/L	5.0	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
104-51-8	n-Butylbenzene	140		ug/L	3.2	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
103-65-1	n-Propylbenzene	370		ug/L	5.8	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
95-47-6	o-Xylene	2100		ug/L	12	120	25	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 20:22	SR
1330-20-7P/M	p- & m- Xylenes	4000		ug/L	5.5	100	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
99-87-6	p-Isopropyltoluene	27	J	ug/L	2.5	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
135-98-8	sec-Butylbenzene	36	J	ug/L	5.2	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
100-42-5	Styrene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
98-06-6	tert-Butylbenzene	ND		ug/L	4.6	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
127-18-4	Tetrachloroethylene	ND		ug/L	5.2	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
108-88-3	Toluene	2100		ug/L	5.8	120	25	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 20:22	SR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
79-01-6	Trichloroethylene	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-69-4	Trichlorofluoromethane	ND		ug/L	9.1	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
75-01-4	Vinyl Chloride	ND		ug/L	9.7	50	10	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 08:34	SR
1330-20-7	Xylenes, Total	6200		ug/L	26	380	25	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 20:22	SR

Sample Information

Client Sample ID: MW-3

York Sample ID: 12B0710-03

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Sample Information

Client Sample ID: MW-3

York Sample ID: 12B0710-03

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.54	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.95	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.57	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.60	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.61	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-34-3	1,1-Dichloroethane	ND		ug/L	0.69	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-35-4	1,1-Dichloroethylene	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.37	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
96-18-4	1,2,3-Trichloropropane	ND		ug/L	1.1	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.48	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
95-63-6	1,2,4-Trimethylbenzene	170		ug/L	11	100	20	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 20:57	SR
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	1.3	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
106-93-4	1,2-Dibromoethane	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.59	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
107-06-2	1,2-Dichloroethane	ND		ug/L	0.65	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
78-87-5	1,2-Dichloropropane	ND		ug/L	0.22	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
108-67-8	1,3,5-Trimethylbenzene	75		ug/L	0.37	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.47	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
142-28-9	1,3-Dichloropropane	ND		ug/L	0.69	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
594-20-7	2,2-Dichloropropane	ND		ug/L	0.96	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
78-93-3	2-Butanone	18		ug/L	2.6	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
95-49-8	2-Chlorotoluene	ND		ug/L	0.49	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
106-43-4	4-Chlorotoluene	ND		ug/L	0.49	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
67-64-1	Acetone	ND		ug/L	3.1	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
71-43-2	Benzene	95		ug/L	0.48	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
108-86-1	Bromobenzene	ND		ug/L	0.61	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
74-97-5	Bromochloromethane	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-27-4	Bromodichloromethane	ND		ug/L	0.62	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-25-2	Bromoform	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
74-83-9	Bromomethane	ND		ug/L	1.2	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
56-23-5	Carbon tetrachloride	ND		ug/L	1.0	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
108-90-7	Chlorobenzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-00-3	Chloroethane	ND		ug/L	0.76	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR

Sample Information

Client Sample ID: MW-3

York Sample ID: 12B0710-03

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/L	0.36	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.96	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
124-48-1	Dibromochloromethane	ND		ug/L	0.67	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
74-95-3	Dibromomethane	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.83	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
100-41-4	Ethyl Benzene	43		ug/L	0.35	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
98-82-8	Isopropylbenzene	15		ug/L	0.39	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
1634-04-4	Methyl tert-butyl ether (MTBE)	930		ug/L	7.6	100	20	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 20:57	SR
75-09-2	Methylene chloride	5.0	J, B	ug/L	1.1	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
91-20-3	Naphthalene	42		ug/L	0.50	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
104-51-8	n-Butylbenzene	12		ug/L	0.32	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
103-65-1	n-Propylbenzene	32		ug/L	0.58	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
95-47-6	o-Xylene	65		ug/L	0.50	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
1330-20-7P/M	p- & m- Xylenes	120		ug/L	0.55	10	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
99-87-6	p-Isopropyltoluene	3.5	J	ug/L	0.25	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
135-98-8	sec-Butylbenzene	4.0	J	ug/L	0.52	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
100-42-5	Styrene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
127-18-4	Tetrachloroethylene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
108-88-3	Toluene	63		ug/L	0.23	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.65	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
79-01-6	Trichloroethylene	ND		ug/L	0.57	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-69-4	Trichlorofluoromethane	ND		ug/L	0.91	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
75-01-4	Vinyl Chloride	ND		ug/L	0.97	5.0	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR
1330-20-7	Xylenes, Total	190		ug/L	1.0	15	1	EPA SW846-8260B	02/27/2012 16:20	02/28/2012 09:10	SR

Sample Information

Client Sample ID: MW-4

York Sample ID: 12B0710-04

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Sample Information

Client Sample ID: MW-4

York Sample ID: 12B0710-04

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatiles Organics, 8260 List

Log-in Notes:

Sample Notes: VOA-PH

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	5.4	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
71-55-6	1,1,1-Trichloroethane	ND		ug/L	9.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	6.0	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
79-00-5	1,1,2-Trichloroethane	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-34-3	1,1-Dichloroethane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-35-4	1,1-Dichloroethylene	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
563-58-6	1,1-Dichloropropylene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	3.7	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
96-18-4	1,2,3-Trichloropropane	ND		ug/L	11	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	4.8	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
95-63-6	1,2,4-Trimethylbenzene	35	J	ug/L	5.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	13	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
106-93-4	1,2-Dibromoethane	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	5.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
107-06-2	1,2-Dichloroethane	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
78-87-5	1,2-Dichloropropane	ND		ug/L	2.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	3.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	4.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
142-28-9	1,3-Dichloropropane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
594-20-7	2,2-Dichloropropane	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
78-93-3	2-Butanone	ND		ug/L	26	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
95-49-8	2-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
106-43-4	4-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
67-64-1	Acetone	ND		ug/L	31	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
71-43-2	Benzene	ND		ug/L	4.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
108-86-1	Bromobenzene	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
74-97-5	Bromochloromethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-27-4	Bromodichloromethane	ND		ug/L	6.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-25-2	Bromoform	ND		ug/L	5.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
74-83-9	Bromomethane	ND		ug/L	12	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
56-23-5	Carbon tetrachloride	ND		ug/L	10	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
108-90-7	Chlorobenzene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-00-3	Chloroethane	ND		ug/L	7.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR

Sample Information

Client Sample ID: MW-4

York Sample ID: 12B0710-04

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes: VOA-PH

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/L	3.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
74-87-3	Chloromethane	ND		ug/L	8.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
124-48-1	Dibromochloromethane	ND		ug/L	6.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
74-95-3	Dibromomethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-71-8	Dichlorodifluoromethane	ND		ug/L	8.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
100-41-4	Ethyl Benzene	22	J	ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
98-82-8	Isopropylbenzene	ND		ug/L	3.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
1634-04-4	Methyl tert-butyl ether (MTBE)	4000		ug/L	19	250	50	EPA SW846-8260B	02/28/2012 12:26	02/29/2012 16:38	SS
75-09-2	Methylene chloride	4.4	B-Dil, J, B	ug/L	1.1	10	1	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
91-20-3	Naphthalene	ND		ug/L	5.0	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
104-51-8	n-Butylbenzene	ND		ug/L	3.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
103-65-1	n-Propylbenzene	ND		ug/L	5.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
95-47-6	o-Xylene	20	J	ug/L	5.0	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
1330-20-7P/M	p- & m- Xylenes	62	J	ug/L	5.5	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
99-87-6	p-Isopropyltoluene	ND		ug/L	2.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
135-98-8	sec-Butylbenzene	ND		ug/L	5.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
100-42-5	Styrene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
98-06-6	tert-Butylbenzene	ND		ug/L	4.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
127-18-4	Tetrachloroethylene	ND		ug/L	5.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
108-88-3	Toluene	14	J	ug/L	2.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
79-01-6	Trichloroethylene	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-69-4	Trichlorofluoromethane	ND		ug/L	9.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
75-01-4	Vinyl Chloride	ND		ug/L	9.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR
1330-20-7	Xylenes, Total	83	J	ug/L	10	150	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:00	SR

Sample Information

Client Sample ID: MW-4

York Sample ID: 12B0710-04

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes: EXT-D, EXT-E

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	1.59	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
95-50-1	1,2-Dichlorobenzene	ND		ug/L	1.99	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
541-73-1	1,3-Dichlorobenzene	ND		ug/L	3.33	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
106-46-7	1,4-Dichlorobenzene	ND		ug/L	3.91	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	4.37	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	3.97	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
120-83-2	2,4-Dichlorophenol	ND		ug/L	3.75	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
105-67-9	2,4-Dimethylphenol	ND		ug/L	4.46	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
51-28-5	2,4-Dinitrophenol	ND		ug/L	11.6	12.1	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
121-14-2	2,4-Dinitrotoluene	ND		ug/L	2.87	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
606-20-2	2,6-Dinitrotoluene	ND		ug/L	4.25	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
91-58-7	2-Chloronaphthalene	ND		ug/L	4.23	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
95-57-8	2-Chlorophenol	ND		ug/L	4.14	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
91-57-6	2-Methylnaphthalene	ND		ug/L	3.73	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
95-48-7	2-Methylphenol	ND		ug/L	1.04	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
88-74-4	2-Nitroaniline	ND		ug/L	3.65	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
88-75-5	2-Nitrophenol	ND		ug/L	3.76	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
100-01-6	3- & 4-Methylphenols	ND		ug/L	4.50	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
91-94-1	3,3'-Dichlorobenzidine	ND		ug/L	4.26	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
99-09-2	3-Nitroaniline	ND		ug/L	1.93	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/L	8.12	12.1	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
101-55-3	4-Bromophenyl phenyl ether	ND		ug/L	4.18	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
59-50-7	4-Chloro-3-methylphenol	ND		ug/L	4.40	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
106-47-8	4-Chloroaniline	ND		ug/L	4.53	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/L	3.78	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
100-02-7	4-Nitroaniline	ND		ug/L	4.57	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
56-57-5	4-Nitrophenol	ND		ug/L	4.78	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
83-32-9	Acenaphthene	ND		ug/L	3.92	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
208-96-8	Acenaphthylene	ND		ug/L	5.18	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
62-53-3	Aniline	ND		ug/L	2.38	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
120-12-7	Anthracene	ND		ug/L	4.44	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	4.93	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	5.88	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	4.99	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	5.03	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD

Sample Information

Client Sample ID: MW-4

York Sample ID: 12B0710-04

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes: EXT-D, EXT-E

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	ND		ug/L	4.19	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
100-51-6	Benzyl alcohol	ND		ug/L	4.85	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
85-68-7	Benzyl butyl phthalate	ND		ug/L	2.79	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/L	5.88	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
111-44-4	Bis(2-chloroethyl)ether	ND		ug/L	4.99	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/L	5.03	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/L	3.12	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
218-01-9	Chrysene	ND		ug/L	5.03	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	3.76	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
132-64-9	Dibenzofuran	ND		ug/L	3.52	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
84-66-2	Diethyl phthalate	ND		ug/L	2.67	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
131-11-3	Dimethyl phthalate	ND		ug/L	5.88	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
84-74-2	Di-n-butyl phthalate	ND		ug/L	4.99	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
117-84-0	Di-n-octyl phthalate	ND		ug/L	5.03	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
206-44-0	Fluoranthene	ND		ug/L	1.93	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
86-73-7	Fluorene	ND		ug/L	3.91	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
118-74-1	Hexachlorobenzene	ND		ug/L	3.58	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
87-68-3	Hexachlorobutadiene	ND		ug/L	4.01	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
77-47-4	Hexachlorocyclopentadiene	ND		ug/L	4.18	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
67-72-1	Hexachloroethane	ND		ug/L	4.40	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	3.33	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
78-59-1	Isophorone	ND		ug/L	3.91	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
91-20-3	Naphthalene	ND		ug/L	4.68	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
98-95-3	Nitrobenzene	ND		ug/L	2.38	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
62-75-9	N-Nitrosodimethylamine	ND		ug/L	3.76	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
621-64-7	N-nitroso-di-n-propylamine	ND		ug/L	3.12	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
86-30-6	N-Nitrosodiphenylamine	ND		ug/L	4.39	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
87-86-5	Pentachlorophenol	ND		ug/L	4.56	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
85-01-8	Phenanthrene	ND		ug/L	4.37	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
108-95-2	Phenol	ND		ug/L	3.97	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
129-00-0	Pyrene	ND		ug/L	2.87	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD
110-86-1	Pyridine	ND		ug/L	3.86	6.06	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:24	TD

Sample Information

Client Sample ID: HVE-1

York Sample ID: 12B0710-05

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	5.4	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
71-55-6	1,1,1-Trichloroethane	ND		ug/L	9.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	6.0	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
79-00-5	1,1,2-Trichloroethane	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
75-34-3	1,1-Dichloroethane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
75-35-4	1,1-Dichloroethylene	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
563-58-6	1,1-Dichloropropylene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	3.7	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
96-18-4	1,2,3-Trichloropropane	ND		ug/L	11	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	4.8	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	5.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	13	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
106-93-4	1,2-Dibromoethane	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	5.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
107-06-2	1,2-Dichloroethane	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
78-87-5	1,2-Dichloropropane	ND		ug/L	2.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	3.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	4.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
142-28-9	1,3-Dichloropropane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
594-20-7	2,2-Dichloropropane	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
78-93-3	2-Butanone	ND		ug/L	26	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
95-49-8	2-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
106-43-4	4-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
67-64-1	Acetone	ND		ug/L	31	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
71-43-2	Benzene	ND		ug/L	4.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
108-86-1	Bromobenzene	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
74-97-5	Bromochloromethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
75-27-4	Bromodichloromethane	ND		ug/L	6.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
75-25-2	Bromoform	ND		ug/L	5.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
74-83-9	Bromomethane	ND		ug/L	12	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
56-23-5	Carbon tetrachloride	ND		ug/L	10	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
108-90-7	Chlorobenzene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR

Sample Information

Client Sample ID: HVE-1

York Sample ID: 12B0710-05

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	7.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
67-66-3	Chloroform	ND		ug/L	3.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
74-87-3	Chloromethane	ND		ug/L	8.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
124-48-1	Dibromochloromethane	ND		ug/L	6.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
74-95-3	Dibromomethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
75-71-8	Dichlorodifluoromethane	ND		ug/L	8.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
100-41-4	Ethyl Benzene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
98-82-8	Isopropylbenzene	ND		ug/L	3.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
1634-04-4	Methyl tert-butyl ether (MTBE)	2800		ug/L	19	250	50	EPA SW846-8260B	02/28/2012 12:26	02/29/2012 17:14	SS
75-09-2	Methylene chloride	4.9	B-Dil, J, B	ug/L	1.1	10	1	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
91-20-3	Naphthalene	ND		ug/L	5.0	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
104-51-8	n-Butylbenzene	ND		ug/L	3.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
103-65-1	n-Propylbenzene	ND		ug/L	5.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
95-47-6	o-Xylene	ND		ug/L	5.0	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	5.5	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
99-87-6	p-Isopropyltoluene	ND		ug/L	2.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
135-98-8	sec-Butylbenzene	ND		ug/L	5.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
100-42-5	Styrene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
98-06-6	tert-Butylbenzene	ND		ug/L	4.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
127-18-4	Tetrachloroethylene	ND		ug/L	5.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
108-88-3	Toluene	ND		ug/L	2.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
79-01-6	Trichloroethylene	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
75-69-4	Trichlorofluoromethane	ND		ug/L	9.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
75-01-4	Vinyl Chloride	ND		ug/L	9.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR
1330-20-7	Xylenes, Total	ND		ug/L	10	150	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 18:35	SR

Sample Information

Client Sample ID: HVE-1

York Sample ID: 12B0710-05

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes: EXT-D, EXT-E

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	1.69	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.11	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
541-73-1	1,3-Dichlorobenzene	ND		ug/L	3.54	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
106-46-7	1,4-Dichlorobenzene	ND		ug/L	4.16	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	4.66	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	4.22	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
120-83-2	2,4-Dichlorophenol	ND		ug/L	3.99	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
105-67-9	2,4-Dimethylphenol	ND		ug/L	4.75	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
51-28-5	2,4-Dinitrophenol	ND		ug/L	12.4	12.9	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
121-14-2	2,4-Dinitrotoluene	ND		ug/L	3.05	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
606-20-2	2,6-Dinitrotoluene	ND		ug/L	4.53	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
91-58-7	2-Chloronaphthalene	ND		ug/L	4.50	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
95-57-8	2-Chlorophenol	ND		ug/L	4.41	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
91-57-6	2-Methylnaphthalene	ND		ug/L	3.97	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
95-48-7	2-Methylphenol	ND		ug/L	1.11	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
88-74-4	2-Nitroaniline	ND		ug/L	3.88	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
88-75-5	2-Nitrophenol	ND		ug/L	4.00	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
100-01-6	3- & 4-Methylphenols	ND		ug/L	4.80	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
91-94-1	3,3'-Dichlorobenzidine	ND		ug/L	4.53	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
99-09-2	3-Nitroaniline	ND		ug/L	2.06	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/L	8.65	12.9	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
101-55-3	4-Bromophenyl phenyl ether	ND		ug/L	4.45	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
59-50-7	4-Chloro-3-methylphenol	ND		ug/L	4.68	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
106-47-8	4-Chloroaniline	ND		ug/L	4.83	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/L	4.03	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
100-02-7	4-Nitroaniline	ND		ug/L	4.86	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
56-57-5	4-Nitrophenol	ND		ug/L	5.08	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
83-32-9	Acenaphthene	ND		ug/L	4.18	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
208-96-8	Acenaphthylene	ND		ug/L	5.52	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
62-53-3	Aniline	ND		ug/L	2.54	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
120-12-7	Anthracene	ND		ug/L	4.72	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
56-55-3	Benzo(a)anthracene	ND		ug/L	5.25	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
50-32-8	Benzo(a)pyrene	ND		ug/L	6.25	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
205-99-2	Benzo(b)fluoranthene	ND		ug/L	5.32	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	5.36	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD

Sample Information

Client Sample ID: HVE-1

York Sample ID: 12B0710-05

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Semi-Volatiles, 8270 Target List

Log-in Notes:

Sample Notes: EXT-D, EXT-E

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	ND		ug/L	4.46	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
100-51-6	Benzyl alcohol	ND		ug/L	5.16	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
85-68-7	Benzyl butyl phthalate	ND		ug/L	2.97	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/L	6.25	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
111-44-4	Bis(2-chloroethyl)ether	ND		ug/L	5.32	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/L	5.36	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/L	3.32	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
218-01-9	Chrysene	ND		ug/L	5.36	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	4.00	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
132-64-9	Dibenzofuran	ND		ug/L	3.74	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
84-66-2	Diethyl phthalate	ND		ug/L	2.84	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
131-11-3	Dimethyl phthalate	ND		ug/L	6.25	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
84-74-2	Di-n-butyl phthalate	ND		ug/L	5.32	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
117-84-0	Di-n-octyl phthalate	ND		ug/L	5.36	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
206-44-0	Fluoranthene	ND		ug/L	2.06	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
86-73-7	Fluorene	ND		ug/L	4.16	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
118-74-1	Hexachlorobenzene	ND		ug/L	3.81	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
87-68-3	Hexachlorobutadiene	ND		ug/L	4.27	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
77-47-4	Hexachlorocyclopentadiene	ND		ug/L	4.45	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
67-72-1	Hexachloroethane	ND		ug/L	4.68	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	3.54	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
78-59-1	Isophorone	ND		ug/L	4.16	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
91-20-3	Naphthalene	ND		ug/L	4.98	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
98-95-3	Nitrobenzene	ND		ug/L	2.54	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
62-75-9	N-Nitrosodimethylamine	ND		ug/L	4.00	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
621-64-7	N-nitroso-di-n-propylamine	ND		ug/L	3.32	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
86-30-6	N-Nitrosodiphenylamine	ND		ug/L	4.67	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
87-86-5	Pentachlorophenol	ND		ug/L	4.86	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
85-01-8	Phenanthrene	ND		ug/L	4.66	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
108-95-2	Phenol	ND		ug/L	4.22	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
129-00-0	Pyrene	ND		ug/L	3.05	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD
110-86-1	Pyridine	ND		ug/L	4.11	6.45	1	EPA SW-846 8270C	02/27/2012 06:54	02/29/2012 01:56	TD

Sample Information

Client Sample ID: SVE-1

York Sample ID: 12B0710-06

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	5.4	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
71-55-6	1,1,1-Trichloroethane	ND		ug/L	9.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	6.0	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
79-00-5	1,1,2-Trichloroethane	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-34-3	1,1-Dichloroethane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-35-4	1,1-Dichloroethylene	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
563-58-6	1,1-Dichloropropylene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	3.7	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
96-18-4	1,2,3-Trichloropropane	ND		ug/L	11	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	4.8	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
95-63-6	1,2,4-Trimethylbenzene	880		ug/L	5.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	13	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
106-93-4	1,2-Dibromoethane	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	5.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
107-06-2	1,2-Dichloroethane	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
78-87-5	1,2-Dichloropropane	ND		ug/L	2.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
108-67-8	1,3,5-Trimethylbenzene	240		ug/L	3.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	4.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
142-28-9	1,3-Dichloropropane	ND		ug/L	6.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
594-20-7	2,2-Dichloropropane	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
78-93-3	2-Butanone	75	J	ug/L	26	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
95-49-8	2-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
106-43-4	4-Chlorotoluene	ND		ug/L	4.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
67-64-1	Acetone	210	B	ug/L	31	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
71-43-2	Benzene	3800		ug/L	48	500	100	EPA SW846-8260B	02/28/2012 12:26	02/29/2012 17:50	SS
108-86-1	Bromobenzene	ND		ug/L	6.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
74-97-5	Bromochloromethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-27-4	Bromodichloromethane	ND		ug/L	6.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-25-2	Bromoform	ND		ug/L	5.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
74-83-9	Bromomethane	ND		ug/L	12	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
56-23-5	Carbon tetrachloride	ND		ug/L	10	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
108-90-7	Chlorobenzene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR

Sample Information

Client Sample ID: SVE-1

York Sample ID: 12B0710-06

<u>York Project (SDG) No.</u> 12B0710	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> February 15, 2012 3:00 pm	<u>Date Received</u> 02/22/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	7.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
67-66-3	Chloroform	ND		ug/L	3.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
74-87-3	Chloromethane	ND		ug/L	8.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	9.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
124-48-1	Dibromochloromethane	ND		ug/L	6.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
74-95-3	Dibromomethane	ND		ug/L	13	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-71-8	Dichlorodifluoromethane	ND		ug/L	8.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
100-41-4	Ethyl Benzene	1400		ug/L	3.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
87-68-3	Hexachlorobutadiene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
98-82-8	Isopropylbenzene	46	J	ug/L	3.9	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
1634-04-4	Methyl tert-butyl ether (MTBE)	490		ug/L	3.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-09-2	Methylene chloride	5.4	B-Dil, J, B	ug/L	1.1	10	1	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
91-20-3	Naphthalene	330		ug/L	5.0	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
104-51-8	n-Butylbenzene	13	J	ug/L	3.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
103-65-1	n-Propylbenzene	80		ug/L	5.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
95-47-6	o-Xylene	2100		ug/L	5.0	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
1330-20-7P/M	p- & m- Xylenes	3700		ug/L	5.5	100	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
99-87-6	p-Isopropyltoluene	ND		ug/L	2.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
135-98-8	sec-Butylbenzene	ND		ug/L	5.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
100-42-5	Styrene	ND		ug/L	4.3	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
98-06-6	tert-Butylbenzene	ND		ug/L	4.6	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
127-18-4	Tetrachloroethylene	ND		ug/L	5.2	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
108-88-3	Toluene	7800		ug/L	23	500	100	EPA SW846-8260B	02/28/2012 12:26	02/29/2012 17:50	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	6.5	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	6.8	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
79-01-6	Trichloroethylene	ND		ug/L	5.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-69-4	Trichlorofluoromethane	ND		ug/L	9.1	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
75-01-4	Vinyl Chloride	ND		ug/L	9.7	50	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR
1330-20-7	Xylenes, Total	5800		ug/L	10	150	10	EPA SW846-8260B	02/28/2012 12:26	02/28/2012 19:11	SR

Notes and Definitions

VOA-PH Insufficient preservative to reduce the sample pH to less than 2. Sample was analyzed within 14 days of sampling, but beyond the 7 days recommended for Volatiles.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

J Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration.

EXT-EM The sample exhibited emulsion formation during the extraction process. This may affect surrogate recoveries.

EXT-D The sample submitted contained sediment. The aqueous portion was decanted off, the volume measured and used for the extraction. The sediment was not included in the extraction.

B-Dil Detected in method blank(s) associated with the sample analysis. This is a common lab artifact which is found at ND-25 ppb. No dilution factor has been applied to these compounds to eliminate artificially inflated results.

B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.

ND Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

MDL METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

Corrective Action: Samples for 8270 were received at Lab out of hold time - JG 02/22/2012

YORK

ANALYTICAL LABORATORIES, INC.

120 RESEARCH DRIVE STRATFORD, CT 06615
 --(203) 325-1371 FAX (203) 357-0166

Field Chain-of-Custody Record

Page of
 12B0710

Company Name: Presby Educ. Report To: Nik Invoice To: Nik Project ID/No.: 291 Metropolitan
 Samples Collected By (Signature): [Signature]
 Name (Printed): Nicholas Presby

Sample No.	Location/ID	Date Sampled	Sample Matrix			ANALYSES REQUESTED	Container Description(s)	
			Water	Soil	Air			OTHER
	MW-1	2/15/12	✓			EPA 82-60	2 VOA	
	MW-2	"	✓			"	"	
	MW-3	"	✓			"	"	
	MW-4	"	✓			"	"	
	MW-4	"	✓			EPA 8270	1 L	
	HVE-1	"	✓			EPA 82-60	2 VOA	
	HVE-1	"	✓			EPA 8270	1 L	
	SVE-1	"	✓			EPA 8260	2 VOA	
	<u>SOE 4222222222</u>							

Chain-of-Custody Record

Bottles Relinquished from Lab by: [Signature] Date/Time: 2/21/12
 Sample Relinquished by: [Signature] Date/Time: 2/21/12
 Bottles Received in Field by: [Signature] Date/Time: 2/21/12
 Sample Received in LAB by: [Signature] Date/Time: 2/21/12
 Sample Received in LAB by: [Signature] Date/Time: 2/21/12

Turn-Around Time: Standard: RUSH(define):

July 23, 2012

Raphael Katani, CPG
New York State Department of Environmental Conservation
Engineering Geologist II
Hazardous Materials Unit
NYS DEC
47-40 21st Street
Long Island City, NY 11101

Subject: Supplemental Subsurface Investigation Report
NYSDEC File No. R2-20091106-652
291 Metropolitan Avenue, Brooklyn, NY

Dear Raphael,

This report was prepared to summarize the results of the supplemental subsurface investigation performed at the subject property during the period between June 5 and June 14, 2012. The investigation was performed in order to further evaluate the presence of dissolved volatile organic compounds (VOCs) within the subsurface at the subject property. The scope of work was based on the results of the Pressly & Associates, Inc. (Pressly) report dated March 8, 2012 and comments provided by the New York State Department of Environmental Conservation.

In addition to the supplemental investigation, a soil vapor extraction/air sparging system (SVE/AS) was installed based on the recommendations of the March 8 report.

BACKGROUND

Based on the March 8 report, the highest levels of dissolved VOCs (21,169 ppb) and Benzene (3,800 ppb) were detected within groundwater at SVE-1, which is located proximate to the sidewalk on the southern side of the property. Elevated dissolved VOC levels (14,066 ppb) were also detected within MW-2, located down-gradient (north) of the former gasoline UST area.

Lower levels of total VOCs (ranging from 927 ppb to 4135 ppb) were detected within MW-1, MW-3, MW-4, and HVE-1 and were composed almost entirely of MtBE.

SVOCs were not detected within the groundwater at MW-4 and HVE-1, located down-gradient and within the former waste oil tank area, respectively.

SCOPE OF WORK

Additional Monitoring Well Installation

A geoprobe drilling rig was used to install a total of 2 additional monitoring wells at the site. MW-5 was installed on the northern (downgradient) portion of the property within the service station building. MW-6 was installed southeast of SVE-1 on the sidewalk adjacent to Metropolitan Avenue.

The monitoring wells MW were constructed with 1-inch PVC screen (0.01slot) and casing. A silica sand pack was installed within the annulus between the well screen and the borehole. A 3-foot bentonite seal was placed above

the well screen to prevent surface water infiltration into the well. Each well was finished with a 6-inch flush mounted road box. The well locations were depicted on Figure 1.

The top of casing elevation of each monitoring well was surveyed to a relative datum. Prior to sampling, a Solinst water level meter was used to measure the depth to groundwater within each well relative to the top of casing elevation. A total of 3 well volumes of groundwater was purged from each well and groundwater samples were collected for analysis according to EPA Method 8260. Purge water was stored within a 55 gallon drum on-site. The samples were analyzed by York Environmental Laboratories in Stratford, CT.

SVE/AS Installation

The SVE/AS system was designed based on previous data from sites with similar soil conditions which are those with relatively low permeability materials which include fine sand and silt with some clay. These sites typically yield a minimum radius of influence (ROI), and air flow rates. The air flow, vacuum/pressure, and ROI data equivalents from this site were summarized below in Table 1.

Table 1
Data Equivalents

	<u>SVE Well</u>	<u>AS Well</u>
Avg. Air Flow	60 SCFM	4 SCFM
Avg. Pressure/Vacuum	40 inH ₂ O	4 psi
Estimated ROI	20 feet	10 feet

The SVE system includes three SVE Wells (SVE-1, SVE-2, and SVE-3) and a total of five AS wells (AS-1, AS-2, AS-3, AS-4, and AS-5). All SVE and AS wells are individually piped to the equipment area within the building where individual valves were installed to regulate air flow and well head pressure. SVE well vacuum data was collected using magnehelic portable gauges. Each AS well manifold is equipped with an individual pressure gauge.

The SVE system is powered by a 4HP Rotron Regenerative Blower capable of 200 scfm with a maximum vacuum of 100 inH₂O. The AS system is powered by a Curtis Toledo 5 HP horizontal compressor with 80 gallon tank capable of providing 20 scfm at 100 psi. The compressor was equipped with an oil filter and regulator.

The SVE/AS system layout was depicted on Figure 3.

RESULTS

Groundwater Sampling

The groundwater sampling results were summarized below in Table 2.

Table 2
Hydrocarbons in Groundwater
Parts Per Billion

<u>Location</u>	<u>Benzene</u>	<u>MtBE</u>	<u>Total VOCs</u>
MW-5	ND	4.2	13.1
MW-6	1200	220	22530

Key:

VOCs - Volatile Organic Compounds - EPA 8260

MtBE - Methyl Tertiary Butyl Ether

As shown in Table 2, the highest levels of VOCs were detected in groundwater within MW-6. These levels were nearly equivalent to the levels previously detected within SVE-1 (21169 ppb). However, Benzene levels detected within MW-6 were approximately one third of those previously detected within SVE-1 (3,800 ppb) and MtBE levels were approximately one half of those detected previously within SVE-1 (490 ppb).

Very low levels of VOCs were detected at MW-5 and consisted primarily of MTBE.

The groundwater sample analytical results were included as Attachment 1. The estimated distribution of total dissolved VOCs was depicted on Figure 2.

SVE/AS System Startup Monitoring

System startup was performed on July 20, 2012. Prior to startup, the AS wells were purged with a portable pump to maximize the efficiency of air flow to the subsurface. All purgewater was containerized in a 55 gallon drum on site.

Following system startup, the following data was obtained:

AS well head breakout pressure: 5psi

AS well operational pressure: 3psi

AS well flow rate: Approximately 4 scfm (compressor cycling on/off normal)

SVE well head vacuum: 45 inH₂O

Total SVE flow rate: 120 scfm

SVE Blower Inlet Vacuum: 50 inH₂O (Relief valve fully closed)

A grab air sample was collected from the SVE exhaust using a Summa Cannister. Results will be available in approximately 2 weeks.

CONCLUSIONS

Based on the results of this investigation, Pressly & Associates, Inc. has concluded the following:

- The low levels of VOCs detected at MW-5 indicate the approximate extent of down-gradient plume migration.
- The elevated levels of VOCs detected at SVE-1 and MW-6 are consistent with a leak within a former fill line which was reported to exist in the area.
- The site has been re-paved during the period of this investigation. This will prevent further preferential rainwater infiltration within the plume area and further radial plume migration (primarily MTBE) opposite the normal groundwater flow direction which was to the north-northwest.
- Based on the use of minimum effective ROI data, the current SVE/AS layout will cause effective treatment of the majority of the plume area, including areas beneath the sidewalk towards MW-6.

RECOMMENDATIONS

Based on the results of this investigation, the following is recommended:

- Begin operation of the SVE/AS system,
- collection of system PID, flow, and pressure data from the individual SVE/AS wells on a quarterly basis,
- collection of well head vacuum readings from on-site monitoring wells to evaluate the effective ROI of the system,
- collection of SVE off-gas samples at startup and on a quarterly basis to evaluate the effectiveness of the system, and
- Quarterly reporting to NYS DEC of SVE/AS system monitoring and air sampling data.

We look forward to your comments regarding the results of this investigation and the recommendations contained herein. In the meantime, if you have any questions, please do not hesitate to call me at 607-264-9521.

Sincerely,

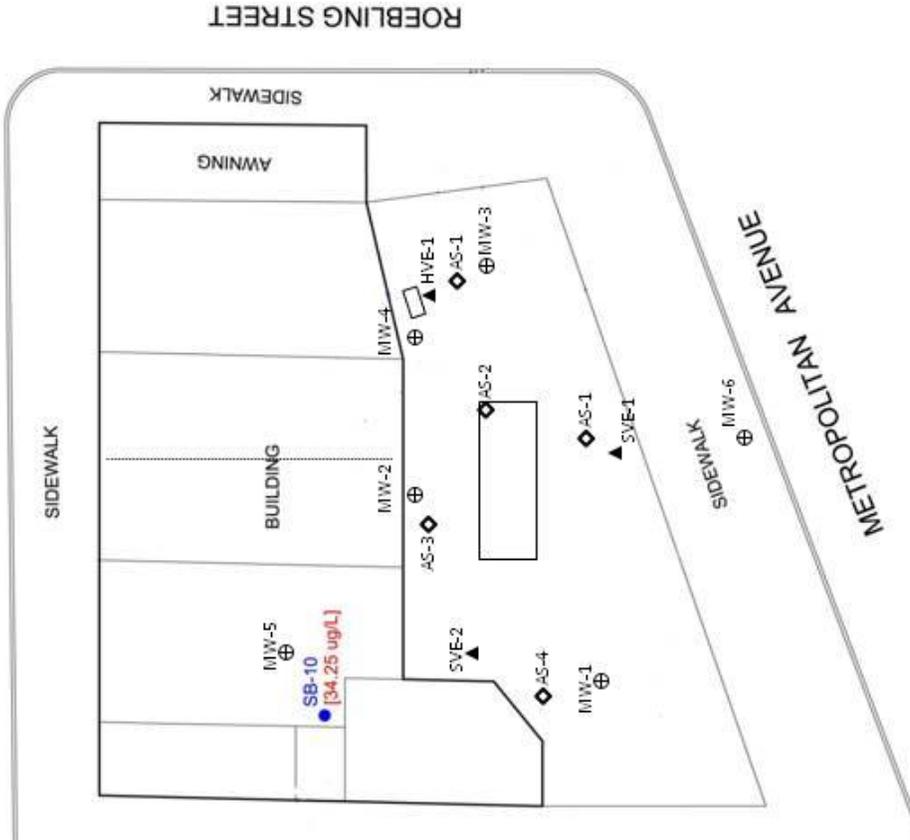


Nicholas Pressly
Environmental Projects Manager

Cc: Jerrietta Hollinger

Figure 1
Site Map

N 4th STREET



Legend

- ⊕ Monitoring Well (MW)
- ▲ Soil Vapor Extraction Well (SVE) - MW
- ◇ Air-Sparge Well (AS)

SB-10 – VOCs in GW - PWG Investigation 9/2010

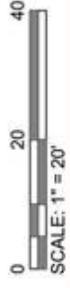
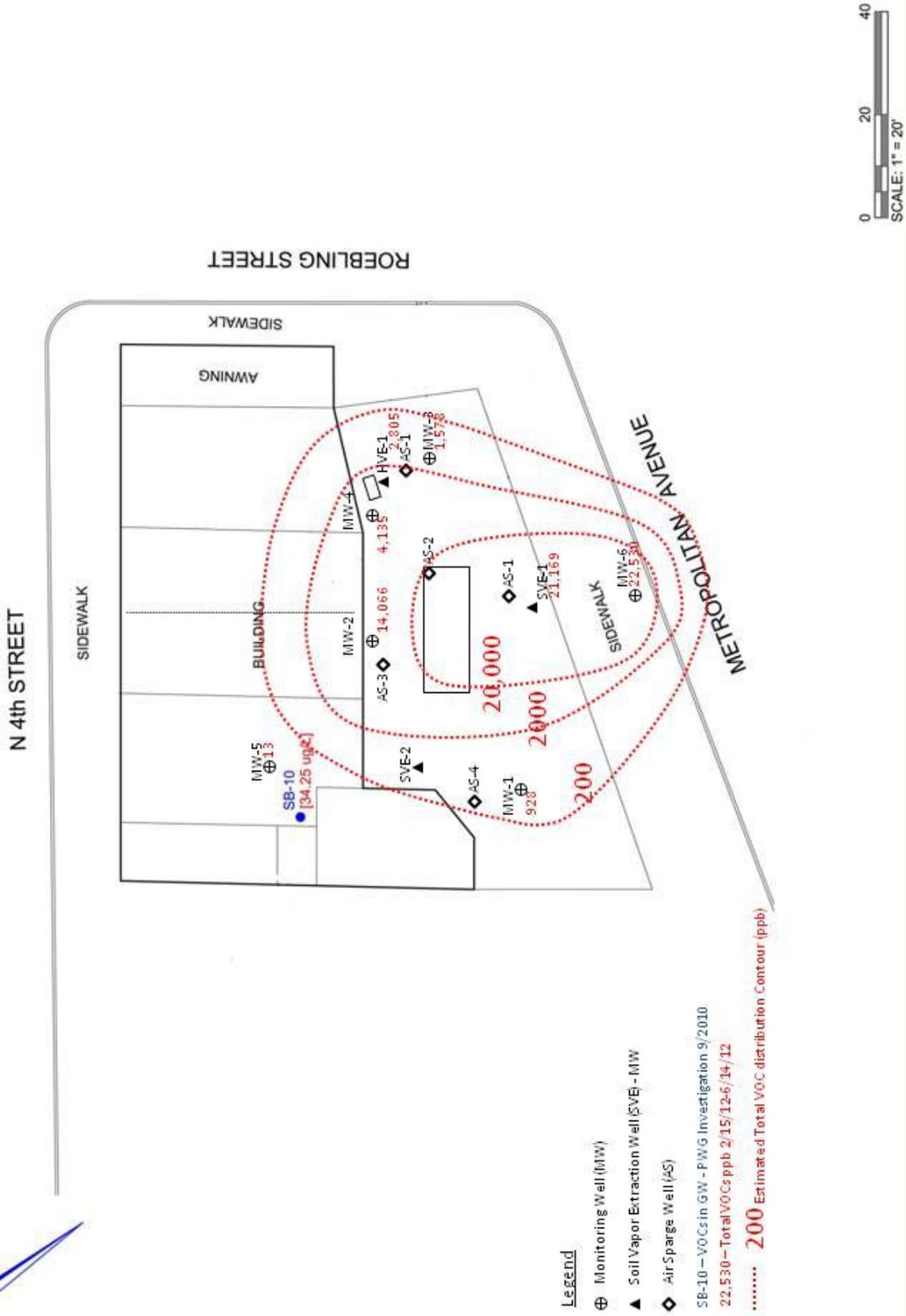


Figure 2
VOC Distribution



Legend

- ⊕ Monitoring Well (MW)
- ▲ Soil Vapor Extraction Well (SVE) - MW
- ◇ Air-Sparge Well (AS)

SB-10 – VOCs in GW - FWG Investigation 9/2010

22,530 – Total VOCs ppb 2/15/12-6/14/12

..... **200** Estimated Total VOC distribution Contour (ppb)

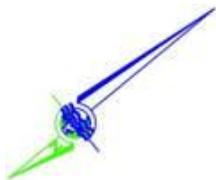
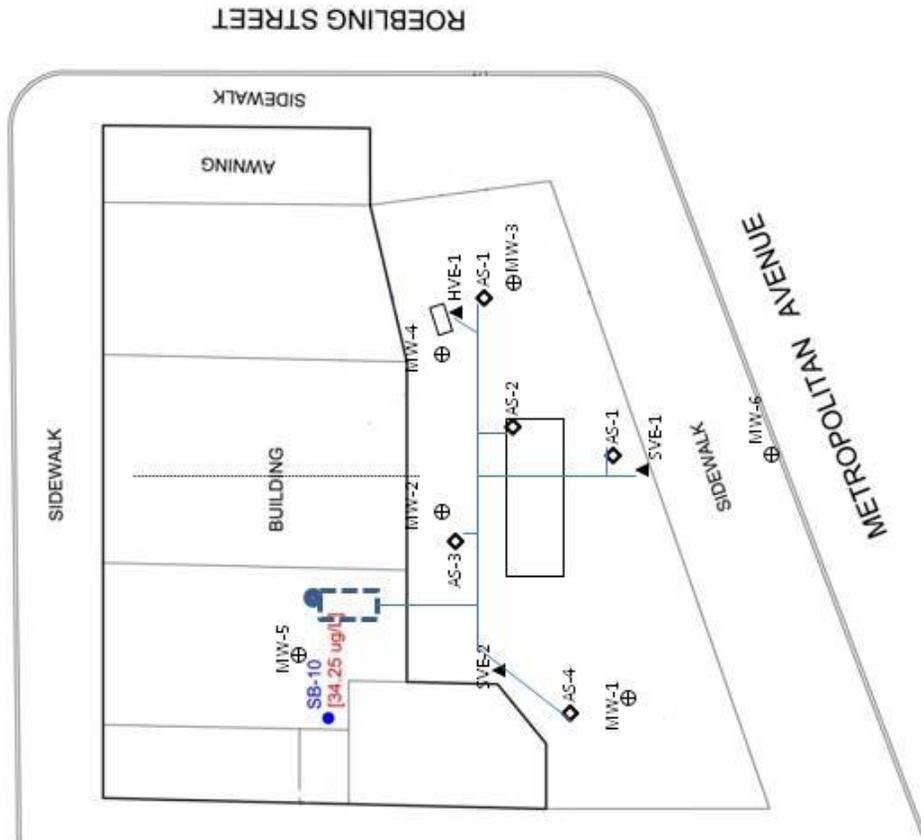


Figure 3
SVE/AS Layout
N 4th STREET



Legend

- ⊕ Monitoring Well (MW)
- ▲ Soil Vapor Extraction Well (SVE) - MW
- ◇ Air-Sparge Well (AS)
- SB-10 – VOCs in GW - FWG Investigation 9/2010
- SVE/AS Below Grade Piping
- ▭ SVE Vacuum Blower/AS Compressor Area
- SVE exhaust stack to 5 feet above building roof



Technical Report

prepared for:

Pressly & Assoc.
721 County Road #54
Cherry Valley NY, 13320
Attention: Mr. Nick Pressly

Report Date: 06/25/2012
Client Project ID: 291 Metropolitan
York Project (SDG) No.: 12F0587

CT License No. PH-0723

New Jersey License No. CT-005



New York License No. 10854

PA License No. 68-04440

Report Date: 06/25/2012
Client Project ID: 291 Metropolitan
York Project (SDG) No.: 12F0587

Pressly & Assoc.
721 County Road #54
Cherry Valley NY, 13320
Attention: Mr. Nick Pressly

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 19, 2012 and listed below. The project was identified as your project: **291 Metropolitan**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
12F0587-01	MW-5	Water	06/14/2012	06/19/2012
12F0587-02	MW-6	Water	06/14/2012	06/19/2012

General Notes for York Project (SDG) No.: 12F0587

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Robert Q. Bradley
Executive Vice President / Laboratory Director

Date: 06/25/2012

YORK

Sample Information

Client Sample ID: MW-5

York Sample ID: 12F0587-01

York Project (SDG) No.
12F0587

Client Project ID
291 Metropolitan

Matrix
Water

Collection Date/Time
June 14, 2012 3:00 pm

Date Received
06/19/2012

Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.54	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.95	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.57	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.60	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.61	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.69	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.37	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	1.1	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.48	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.53	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	1.3	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.59	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.65	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.22	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.37	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.47	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.69	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.96	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
78-93-3	2-Butanone	ND		ug/L	2.6	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.49	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.49	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
67-64-1	Acetone	5.2	J, B	ug/L	3.1	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
71-43-2	Benzene	ND		ug/L	0.48	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
108-86-1	Bromobenzene	ND		ug/L	0.61	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
74-97-5	Bromochloromethane	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.62	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-25-2	Bromoform	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
74-83-9	Bromomethane	ND		ug/L	1.2	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
56-23-5	Carbon tetrachloride	ND		ug/L	1.0	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
108-90-7	Chlorobenzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS

Sample Information

Client Sample ID: MW-5

York Sample ID: 12F0587-01

<u>York Project (SDG) No.</u> 12F0587	<u>Client Project ID</u> 291 Metropolitan	<u>Matrix</u> Water	<u>Collection Date/Time</u> June 14, 2012 3:00 pm	<u>Date Received</u> 06/19/2012
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Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	0.76	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
67-66-3	Chloroform	ND		ug/L	0.36	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
74-87-3	Chloromethane	ND		ug/L	0.89	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.96	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.67	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
74-95-3	Dibromomethane	ND		ug/L	1.3	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.83	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.35	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.39	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	4.2	J	ug/L	0.38	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-09-2	Methylene chloride	3.7	J, B	ug/L	1.1	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
91-20-3	Naphthalene	ND		ug/L	0.50	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.32	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.58	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
95-47-6	o-Xylene	ND		ug/L	0.50	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
1330-20-7P/M	p- & m- Xylenes	ND		ug/L	0.55	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.25	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
100-42-5	Styrene	ND		ug/L	0.43	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.46	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.52	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
108-88-3	Toluene	ND		ug/L	0.23	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.65	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.68	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
79-01-6	Trichloroethylene	ND		ug/L	0.57	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.91	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
108-05-4	Vinyl acetate	ND		ug/L	10	10	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.97	5.0	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS
1330-20-7	Xylenes, Total	ND		ug/L	1.0	15	1	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 04:44	SS

Sample Information

Client Sample ID: MW-6

York Sample ID: 12F0587-02

York Project (SDG) No.
12F0587

Client Project ID
291 Metropolitan

Matrix
Water

Collection Date/Time
June 14, 2012 3:00 pm

Date Received
06/19/2012

Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	54	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	95	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	57	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	60	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	61	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	69	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	130	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	43	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	37	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	110	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	48	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
95-63-6	1,2,4-Trimethylbenzene	2400		ug/L	53	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	130	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	68	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	59	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	65	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	22	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
108-67-8	1,3,5-Trimethylbenzene	700		ug/L	37	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	47	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	69	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	68	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	96	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
78-93-3	2-Butanone	ND		ug/L	260	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
95-49-8	2-Chlorotoluene	ND		ug/L	49	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
106-43-4	4-Chlorotoluene	ND		ug/L	49	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
67-64-1	Acetone	420	J, B	ug/L	310	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
71-43-2	Benzene	1200		ug/L	48	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
108-86-1	Bromobenzene	ND		ug/L	61	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
74-97-5	Bromochloromethane	ND		ug/L	130	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-27-4	Bromodichloromethane	ND		ug/L	62	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-25-2	Bromoform	ND		ug/L	58	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
74-83-9	Bromomethane	ND		ug/L	120	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
56-23-5	Carbon tetrachloride	ND		ug/L	100	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
108-90-7	Chlorobenzene	ND		ug/L	35	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS

Sample Information

Client Sample ID: MW-6

York Sample ID: 12F0587-02

York Project (SDG) No.
12F0587

Client Project ID
291 Metropolitan

Matrix
Water

Collection Date/Time
June 14, 2012 3:00 pm

Date Received
06/19/2012

Volatile Organics, 8260 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	76	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
67-66-3	Chloroform	ND		ug/L	36	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
74-87-3	Chloromethane	ND		ug/L	89	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	96	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	35	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
124-48-1	Dibromochloromethane	ND		ug/L	67	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
74-95-3	Dibromomethane	ND		ug/L	130	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	83	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
100-41-4	Ethyl Benzene	1500		ug/L	35	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	43	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
98-82-8	Isopropylbenzene	130	J	ug/L	39	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	220	J	ug/L	38	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-09-2	Methylene chloride	330	J, B	ug/L	110	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
91-20-3	Naphthalene	580	J	ug/L	50	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
104-51-8	n-Butylbenzene	ND		ug/L	32	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
103-65-1	n-Propylbenzene	250	J	ug/L	58	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
95-47-6	o-Xylene	2600		ug/L	50	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
1330-20-7P/M	p- & m- Xylenes	6100		ug/L	55	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	25	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
135-98-8	sec-Butylbenzene	ND		ug/L	52	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
100-42-5	Styrene	ND		ug/L	43	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
98-06-6	tert-Butylbenzene	ND		ug/L	46	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
127-18-4	Tetrachloroethylene	ND		ug/L	52	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
108-88-3	Toluene	6100		ug/L	23	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	65	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	68	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
79-01-6	Trichloroethylene	ND		ug/L	57	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	91	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
108-05-4	Vinyl acetate	ND		ug/L	1000	1000	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
75-01-4	Vinyl Chloride	ND		ug/L	97	500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS
1330-20-7	Xylenes, Total	8700		ug/L	100	1500	100	EPA SW846-8260B	06/19/2012 15:48	06/20/2012 05:24	SS

Notes and Definitions

J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration.
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.

ND	Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
MDL	METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

ATTACHMENT B
SOIL BORING LOGS

Geologic Boring Log Details



ENVIRONMENTAL BUSINESS CONSULTANTS

B1 Boring Log

Location: Performed on southwest portion of property adjacent to Metropolitan Avenue.		Depth to Water (ft. from grade.)		Site Elevation Datum	
Site Name: SYG1203		Address: 291 Metropolitan Avenue, Brooklyn		Date	DTW
Drilling Company: Eastern Environmental		Method: Macro core Geoprobe		Groundwater depth	
Date Started: 1/4/2013		Date Completed: 1/4/2013		Well Specifications	
Completion Depth: 20 feet		Field Technician: Sarah Babyatski			

B1 (NTS)	(ft below grade)	Recovery (in.)	Blow per 6 in.	PID (ppm)	SOIL DESCRIPTION
	0				
	to	15		-	5" - Concrete/Asphalt 10" - Brown/Black medium/coarse grained sands <i>*Soil Sample retained B1(0-2).</i>
	5				
	to	23		-	3" - Brown medium/coarse grained sands 3" - Brick 12" - Gray fine grained sandy clay 5" - Gray fine grained sands
	10				
	to	28		-	3" - Gray fine grained sandy clay 12" - Brown/Gray fine/medium grained sands. Saturated. 2" - Black stained fine grained sands. Odor. 11" - Brown/Black fine grained sands. Odor. <i>*Soil Samples retained B1(10-12) & B1(13-15)</i>
	15				
	to	14			6" - Gray/Brown fine grained sands. Saturated. 6" - Gray fine grained sands with staining. Odor. 2" - Brown fine grained sandy clay <i>*Soil Sample retained B1(18-20)</i>
	20				

Geologic Boring Log Details



ENVIRONMENTAL BUSINESS CONSULTANTS

B2 Boring Log

Location: Performed on southern portion of property in the are of the former USTs/dispensers.		Depth to Water (ft. from grade.)	Site Elevation Datum
Site Name: SYG1203	Address: 291 Metropolitan Avenue, Brooklyn	Date	DTW
		Groundwater depth	
Drilling Company: Eastern Environmental		Method: Macro core Geoprobe	
Date Started: 1/4/2013		Date Completed: 1/4/2013	
Completion Depth: 20 feet		Field Techician Sarah Babyatski	
		Well Specifications	

B2 (NTS)	(ft below grade)	Recovery (in.)	Blow per 6 in.	PID (ppm)	SOIL DESCRIPTION
	0				6" - Concrete/Asphalt
	to	22		-	4" - Brown/Black medium grained sands. Odor. 2" - Gray fine grained sandy clay. Odor. 10" - Brown/Reddish Brown fine/medium grained sands <i>*Soil Sample retained B2(0-2).</i>
	5				2" - Brick
	to	23		-	6" - Black stained fine/medium grained sands. Odor. 10" - Brown/Gray fine/medium grained sands. Odor. 5" - Brown - medium/coarse grained sands and gravel. <i>*Soil Sample retained B2(6-8).</i>
	10				3" - Brown coarse grained sands
to	35		-	10" - Borwn medium grained silty sands. Damp. 4" - Borwn fine grained sandy clay 3" - Brown medium grained sands and gravel. 15" - Gray/Brown medium grained silty sands. <i>*Soil Sample retained B2(10-12)</i>	
15					8" - Gray fine grained sands with dark staining. Odor.
to	26				12" - Brown/Gray medium grained silty sand 6" - Brown medium/coarse grained sands. Saturated. <i>*Soil Sample retained B2(15-17)</i>
20					

Geologic Boring Log Details



ENVIRONMENTAL BUSINESS CONSULTANTS

B3 Boring Log

Location: Performed in southeastern portion of existing automotive repair bays, approximately 15ft from southern wall.		Depth to Water (ft. from grade.)	Site Elevation Datum
Site Name: SYG1203	Address: 291 Metropolitan Avenue, Brooklyn	Date	DTW
		Ground Elevation	
		Groundwater depth	
Drilling Company: Eastern Environmental		Method: Macro core Geoprobe	
Date Started: 1/4/2013		Date Completed: 1/4/2013	
Completion Depth: 20 feet		Field Technician Sarah Babyatski	
		Well Specifications	

B3 (NTS)	(ft below grade)	Reco- very (in.)	Blow per 6 in.	PID (ppm)	SOIL DESCRIPTION
	0				
	to	16		-	6" - Concrete/Asphalt 10" - Brown medium grained silty sand <i>*Soil Sample retained B3(0-2).</i>
	5				
	to	29		-	5" - Brown medium grained silty sand. Odor. 8" - Brown medium/coarse grained sands 9" - Brown medium/coarse grained silty sands 5" - Brown fine grained sandy clay <i>*Soil Sample retained B3(5-7).</i>
	10				
	to	31		-	7" - Brown fine grained sandy clay 12" - Brown fine/medium grained sands 10" - Brown medium grained sands 2" - Gravel <i>*Soil Sample retained B3(10-12)</i>
	15				
	to				11" - Brown medium gained silty sands. Odor. <i>*Soil Sample retained B3(18-20)</i>
	20				

Geologic Boring Log Details



ENVIRONMENTAL BUSINESS CONSULTANTS

B4 Boring Log

Location: Performed in the northwest corner of existing automotive repair bays.		Depth to Water (ft. from grade.)	Site Elevation Datum
Site Name: SYG1203	Address: 291 Metropolitan Avenue, Brooklyn	Date	DTW
		Ground Elevation	
		Groundwater depth	
Drilling Company: Eastern Environmental		Method: Macro core Geoprobe	
Date Started: 1/4/2013		Date Completed: 1/4/2013	
Completion Depth: 20 feet		Field Technician Sarah Babyatski	
		Well Specifications	

B4 (NTS)	(ft below grade)	Reco- very (in.)	Blow per 6 in.	PID (ppm)	SOIL DESCRIPTION
	0				
	to	29		-	4" - Concrete/Asphalt 25" - Crushed brick and stone with fine grained sands <i>*Soil Sample retained B4(0-2).</i>
	5				
	to	42		-	2" - Brick 12" - Brown fine grained sandy clay 12" - Brown fine grained silty sands 16" - Brown fine grained sandy clay
	10				
	to	24		-	4" - Brown fine/medium grained sands 4" - Brown medium grained silty sands and gravel 16" - Brown fine/medium grained silty sands <i>*Soil Sample retained B4(10-12)</i>
	15				
	to	42			10" - Brown medium grained silty sands 4" - Brown coarse grained sands with gravel/brick 14" - Brown medium grained silty sands with gravel. 3" - Brick 11" - Brown fine/medium grained silty sands. <i>*Soil Sample retained B4(16-18)</i>
	20				

Geologic Boring Log Details



ENVIRONMENTAL BUSINESS CONSULTANTS

B5 Boring Log

Location: Performed on southern property line approximately 20ft from Metropolitan Avenue.		Depth to Water (ft. from grade.)	Site Elevation Datum
Site Name: SYG1203	Address: 291 Metropolitan Avenue, Brooklyn	Date	DTW
		Groundwater depth	
Drilling Company: Eastern Environmental	Method: Macro core Geoprobe		Well Specifications
Date Started: 1/4/2013	Date Completed: 1/4/2013		
Completion Depth: 20 feet	Field Technician Sarah Babyatski		

B5 (NTS)	(ft below grade)	Reco- very (in.)	Blow per 6 in.	PID (ppm)	SOIL DESCRIPTION
	0				
	to	0		-	NO RECOVERY
	5				
	to	19		-	5" - Asphalt/Brick 3" - Gray fine grained sandy clay 11" - Gray/Borwn fine/medium gained sands
	10				
to	16		-	7" - Gray/Brown fine/medium grained sands 9" - Gray/Brown fine/medium grained silty sands. Odor. <i>*Soil Samples retained B5(10-12) & B5(13-15)</i>	
15					
to	36				3" - Brown fine/medium grained silty sands. Odor. 6" - Brown fine grained sandy clay 6" - Brown fine/medium grained sands 14" - Brown medium grained silty sands with staining. Odor. Damp. 7" - Tan/Gray medium/coarse grained sands. Odor. <i>*Soil Sample retained B5(18-20)</i>
20					

ATTACHMENT C
GROUNDWATER SAMPLING LOGS

GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: MW1

Date: 1/8/2013

Well Depth (from TOC): 30

Equipment: Check Valve

Static Water Level (from TOC): 19

Height of Water in Well: 11

Gallons of Water per Well Volume: 0.44

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Comments
0.00	400ml/min	0					turbid
5.00	400ml/min	0.55					turbid
10.00	400ml/min	1.1					clear
12.00	400ml/min	1.32					clear

Note 400 ml = 0.11 gallons

GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: MW2

Date: 1/8/2013

Well Depth (from TOC): 30

Equipment: Check Valve

Static Water Level (from TOC): 19

Height of Water in Well: 11

Gallons of Water per Well Volume: 0.44

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Comments
0.00	400ml/min	0					turbid
5.00	400ml/min	0.55					turbid
10.00	400ml/min	1.1					clear
12.00	400ml/min	1.32					clear

Note 400 ml = 0.11 gallons

GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: MW3

Date: 1/8/2013

Well Depth (from TOC): 30

Equipment: Check Valve

Static Water Level (from TOC): 19

Height of Water in Well: 11

Gallons of Water per Well Volume: 0.44

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Comments
0.00	400ml/min	0					turbid
5.00	400ml/min	0.55					turbid
10.00	400ml/min	1.1					clear
12.00	400ml/min	1.32					clear

Note 400 ml = 0.11 gallons

GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: MW6

Date: 1/8/2013

Well Depth (from TOC): 30

Equipment: Check Valve

Static Water Level (from TOC): 19

Height of Water in Well: 11

Gallons of Water per Well Volume: 0.44

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Comments
0.00	400ml/min	0					turbid
5.00	400ml/min	0.55					turbid
10.00	400ml/min	1.1					clear
12.00	400ml/min	1.32					clear

Note 400 ml = 0.11 gallons

GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: MW7

Date: 1/8/2013

Well Depth (from TOC): 25

Equipment: Check Valve

Static Water Level (from TOC): 19

Height of Water in Well: 6

Gallons of Water per Well Volume: 0.24

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Comments
0.00	400ml/min	0					turbid
5.00	400ml/min	0.55					turbid
7.00	400ml/min	0.72					clear

Note 400 ml = 0.11 gallons

GROUNDWATER PURGE / SAMPLE LOGS



ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: SVE1

Date: 1/8/2013

Well Depth (from TOC): 30

Equipment: Check Valve

Static Water Level (from TOC): 19

Height of Water in Well: 11

Gallons of Water per Well Volume: 0.44

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Comments
0.00	400ml/min	0					turbid
5.00	400ml/min	0.55					turbid
10.00	400ml/min	1.1					clear
12.00	400ml/min	1.32					clear

Note 400 ml = 0.11 gallons

ATTACHMENT D
SOIL GAS SAMPLING LOGS



CHAIN OF CUSTODY RECORD AIR ANALYSES

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: info@phoenixlabs.com Fax (860) 645-0823
 Client Services (860) 645-1102

Data Delivery: Fax # _____ Email: 501@phoenix.com

Is Canister Returned Unused? Y/N

Report to: ERC Invoice to: ERC Project Name: 211 Metropolitan Ave
 Address: 1805 Middle Country Rd Ridge NY Address: _____ Location: Brooklyn NY
 Project Mgr: Kevin Brusses P.O. # _____ State: NY
 Phone # 631 504 6000 Quote # _____ Sampled by: KW

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	LAB USE ONLY			Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End (" Hg)
				Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure (" Hg)	Flow Controller Setting (mL/min)							
24326	SS1	12868	6		-3	5041 ✓		0810	1010	1-25-13	-30	-6	
24327	SG2	0464			-4	2870 ✓		0815	1015		-30	-7	
24328	SG3	0480			0	2803 ✓		0905	1105		-30	-5	
24329	SG4	13644			0	4979 ✓		0900	1100		-29	-3	
24330	SS1	13630			0	2860 ✓		1235	1435		-30	-6	
24331	SS3	0487			-3	2862 ✓		1230	1430		-30	-6	
24332	SS4	0482			-3	5046 ✓		1225	1425		-30	-5	
24333	SS2*	13636				2869 ✓		1230	1430		-24		

Relinquished by: [Signature] Date: 1-28-13 Time: 10:30
 Accepted by: [Signature] Date: 1-28-13 Time: 10:49
 State where samples collected: NY
 Data Format: Excel RCP Equis
 PDF MCP Other:
 State where samples collected: NY GISKey
 I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.
 Signature: _____ Date: _____

SPECIAL INSTRUCTIONS, OC REQUIREMENTS, REGULATORY INFORMATION:

* SS2 did not fill. Do not analyze.

ATTACHMENT E
LABORATORY REPORTS IN DIGITAL
FORMAT



Monday, January 14, 2013

Attn: Mr. Charles B. Sosik, P.G.
Environmental Business Consultants
1808 Middle Country Rd
Ridge NY 11961-2406

Project ID: 291 METROPOLITAN AVE.
Sample ID#s: BD16135 - BD16150

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



SDG Comments

January 14, 2013

SDG I.D.: GBD16135

BD16149 - Client provided soil jar for volatile analysis. Phoenix prepared sample per method 5035.



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date

01/04/13
 01/07/13

Time

0:00
 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16135

Project ID: 291 METROPOLITAN AVE.
 Client ID: B1 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	01/08/13	EK	SW6010
Aluminum	5050	58	mg/Kg	01/09/13	EK	SW6010
Arsenic	14.5	0.8	mg/Kg	01/08/13	LK	SW6010
Barium	187	0.39	mg/Kg	01/08/13	EK	SW6010
Beryllium	< 0.31	0.31	mg/Kg	01/08/13	LK	SW6010
Calcium	25700	58	mg/Kg	01/09/13	EK	SW6010
Cadmium	1.11	0.39	mg/Kg	01/08/13	LK	SW6010
Cobalt	6.43	0.39	mg/Kg	01/08/13	LK	SW6010
Chromium	15.3	0.39	mg/Kg	01/08/13	LK	SW6010
Copper	106	0.39	mg/kg	01/08/13	EK	SW6010
Iron	17300	58	mg/Kg	01/09/13	EK	SW6010
Mercury	0.46	0.07	mg/Kg	01/08/13	RS	SW-7471
Potassium	784	5.8	mg/Kg	01/08/13	LK	SW6010
Magnesium	7820	58	mg/Kg	01/09/13	EK	SW6010
Manganese	237	3.9	mg/Kg	01/09/13	EK	SW6010
Sodium	123	5.8	mg/Kg	01/08/13	LK	SW6010
Nickel	26.2	0.39	mg/Kg	01/08/13	EK	SW6010
Lead	336	3.9	mg/Kg	01/09/13	EK	SW6010
Antimony	< 3.9	3.9	mg/Kg	01/08/13	LK	SW6010
Selenium	< 1.6	1.6	mg/Kg	01/08/13	LK	SW6010
TCLP Lead	0.31	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.6	0.6	mg/Kg	01/08/13	LK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	21.9	0.39	mg/Kg	01/08/13	LK	SW6010
Zinc	275	3.9	mg/Kg	01/09/13	EK	SW6010
Percent Solid	87		%	01/07/13	JL	E160.3
Total Cyanide	< 0.57	0.57	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1221	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1232	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1242	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1248	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1254	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1260	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1262	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1268	ND	76	ug/Kg	01/09/13	AW	SW 8082

QA/QC Surrogates

% DCBP	Interference		%	01/09/13	AW	30 - 150 %
% TCMX	55		%	01/09/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND*	23	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND*	23	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND*	23	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND*	36	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND*	36	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND*	11	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND*	36	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND*	110	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND*	36	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND*	11	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND*	36	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND*	73	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND*	73	ug/Kg	01/08/13	MH	SW8081
Endrin	ND*	73	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND*	73	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND*	73	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND*	11	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND*	23	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND*	36	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND*	360	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND*	360	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	Diluted Out		%	01/08/13	MH	30 - 150 %
% TCMX	Diluted Out		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,1,1-Trichloroethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260

Client ID: B1 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	4.6	ug/Kg	01/08/13	R/J	SW8260
1,1,2-Trichloroethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,1-Dichloroethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,1-Dichloroethene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,1-Dichloropropene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260 1P
1,2,3-Trichloropropane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,2-Dibromoethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260 1P
1,2-Dichlorobenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,2-Dichloroethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,2-Dichloropropane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,3-Dichlorobenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,3-Dichloropropane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
1,4-Dichlorobenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
2,2-Dichloropropane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
2-Chlorotoluene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
2-Hexanone	ND	38	ug/Kg	01/08/13	R/J	SW8260
2-Isopropyltoluene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260 1
4-Chlorotoluene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
4-Methyl-2-pentanone	ND	38	ug/Kg	01/08/13	R/J	SW8260
Acetone	ND	38	ug/Kg	01/08/13	R/J	SW8260
Acrylonitrile	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Benzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Bromobenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Bromochloromethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Bromodichloromethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Bromoform	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Bromomethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Carbon Disulfide	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Carbon tetrachloride	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Chlorobenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Chloroethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Chloroform	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Chloromethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260 1
Dibromochloromethane	ND	4.6	ug/Kg	01/08/13	R/J	SW8260
Dibromomethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Dichlorodifluoromethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Ethylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Hexachlorobutadiene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260 1P
Isopropylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
m&p-Xylene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Methyl Ethyl Ketone	ND	46	ug/Kg	01/08/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	15	ug/Kg	01/08/13	R/J	SW8260
Methylene chloride	ND	7.6	ug/Kg	01/08/13	R/J	SW8260

Client ID: B1 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	4300	290	ug/Kg	01/08/13	R/J	SW8260
n-Butylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
n-Propylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
o-Xylene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
p-Isopropyltoluene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
sec-Butylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Styrene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
tert-Butylbenzene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Tetrachloroethene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	15	ug/Kg	01/08/13	R/J	SW8260
Toluene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Total Xylenes	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	15	ug/Kg	01/08/13	R/J	SW8260
Trichloroethene	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Trichlorofluoromethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Trichlorotrifluoroethane	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
Vinyl chloride	ND	7.6	ug/Kg	01/08/13	R/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	107		%	01/08/13	R/J	70 - 130 %
% Bromofluorobenzene	87		%	01/08/13	R/J	70 - 130 %
% Dibromofluoromethane	96		%	01/08/13	R/J	70 - 130 %
% Toluene-d8	100		%	01/08/13	R/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	380	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	610	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	5900	270	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	610	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	270	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	610	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	380	ug/Kg	01/08/13	DD	SW 8270

Client ID: B1 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	270	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	610	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	5700	270	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	290	270	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	270	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	18000	270	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	24000	270	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	450	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	19000	270	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	25000	270	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	11000	270	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	3200	270	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	380	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Carbazole	5100	570	ug/Kg	01/08/13	DD	SW 8270
Chrysene	21000	270	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	2800	270	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	7600	270	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	81000	270	ug/Kg	01/08/13	DD	SW 8270
Fluorene	9100	270	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	270	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	9500	270	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	270	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	7900	270	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	380	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	270	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	380	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	380	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	380	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	74000	270	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
Pyrene	72000	270	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	380	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	100		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	89		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	93		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	93		%	01/08/13	DD	30 - 130 %
% Phenol-d5	98		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	79		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

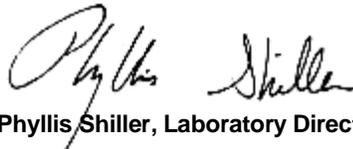
Comments:

* For Pesticides, due to matrix interference from non target compounds in the sample an elevated RL was reported.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16136

Project ID: 291 METROPOLITAN AVE.
 Client ID: B1 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	01/08/13	EK	SW6010
Aluminum	8350	51	mg/Kg	01/09/13	EK	SW6010
Arsenic	1.5	0.7	mg/Kg	01/08/13	EK	SW6010
Barium	31.2	0.34	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.31	0.27	mg/Kg	01/08/13	EK	SW6010
Calcium	797	5.1	mg/Kg	01/08/13	EK	SW6010
Cadmium	< 0.34	0.34	mg/Kg	01/08/13	EK	SW6010
Cobalt	4.69	0.34	mg/Kg	01/08/13	EK	SW6010
Chromium	13.0	0.34	mg/Kg	01/08/13	EK	SW6010
Copper	13.9	0.34	mg/kg	01/08/13	EK	SW6010
Iron	7680	51	mg/Kg	01/09/13	EK	SW6010
Mercury	< 0.08	0.08	mg/Kg	01/08/13	RS	SW-7471
Potassium	884	5.1	mg/Kg	01/08/13	EK	SW6010
Magnesium	1880	5.1	mg/Kg	01/08/13	EK	SW6010
Manganese	96.8	0.34	mg/Kg	01/08/13	EK	SW6010
Sodium	77.9	5.1	mg/Kg	01/08/13	EK	SW6010
Nickel	12.2	0.34	mg/Kg	01/08/13	EK	SW6010
Lead	15.6	0.34	mg/Kg	01/08/13	EK	SW6010
Antimony	< 3.4	3.4	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	01/08/13	EK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.5	0.5	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	18.5	0.34	mg/Kg	01/08/13	EK	SW6010
Zinc	34.5	0.34	mg/Kg	01/08/13	EK	SW6010
Percent Solid	88		%	01/07/13	JL	E160.3
Total Cyanide	< 0.57	0.57	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1221	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1232	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1242	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1248	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1254	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1260	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1262	ND	76	ug/Kg	01/09/13	AW	SW 8082
PCB-1268	ND	76	ug/Kg	01/09/13	AW	SW 8082

QA/QC Surrogates

% DCBP	57		%	01/09/13	AW	30 - 150 %
% TCMX	74		%	01/09/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.3	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.3	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.3	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	11	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.3	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.3	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.3	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.3	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.3	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.3	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	36	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	36	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	72		%	01/08/13	MH	30 - 150 %
% TCMX	60		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	30	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	30	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	30	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Benzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	3.5	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	35	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	5.9	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	12	ug/Kg	01/07/13	H/J	SW8260
Toluene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	5.9	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	97		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	96		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	97		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	98		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	600	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	600	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	600	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	01/08/13	DD	SW 8270

Client ID: B1 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	600	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	450	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	370	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	560	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	370	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	94		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	73		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	80		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	74		%	01/08/13	DD	30 - 130 %
% Phenol-d5	78		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	81		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

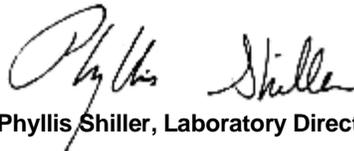
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16137

Project ID: 291 METROPOLITAN AVE.
 Client ID: B2 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	01/08/13	EK	SW6010
Aluminum	6790	54	mg/Kg	01/09/13	EK	SW6010
Arsenic	22.7	0.7	mg/Kg	01/08/13	EK	SW6010
Barium	318	0.36	mg/Kg	01/08/13	EK	SW6010
Beryllium	< 0.29	0.29	mg/Kg	01/08/13	EK	SW6010
Calcium	49100	54	mg/Kg	01/09/13	EK	SW6010
Cadmium	0.81	0.36	mg/Kg	01/08/13	EK	SW6010
Cobalt	5.50	0.36	mg/Kg	01/08/13	EK	SW6010
Chromium	25.8	0.36	mg/Kg	01/08/13	EK	SW6010
Copper	64.9	0.36	mg/kg	01/08/13	EK	SW6010
Iron	14800	54	mg/Kg	01/09/13	EK	SW6010
Mercury	1.07	0.07	mg/Kg	01/08/13	RS	SW-7471
Potassium	1070	5.4	mg/Kg	01/08/13	EK	SW6010
Magnesium	2210	5.4	mg/Kg	01/08/13	EK	SW6010
Manganese	307	3.6	mg/Kg	01/09/13	EK	SW6010
Sodium	275	5.4	mg/Kg	01/08/13	EK	SW6010
Nickel	13.3	0.36	mg/Kg	01/08/13	EK	SW6010
Lead	561	3.6	mg/Kg	01/09/13	EK	SW6010
Antimony	< 3.6	3.6	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	01/08/13	EK	SW6010
TCLP Lead	3.33	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.6	0.6	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	22.5	0.36	mg/Kg	01/08/13	EK	SW6010
Zinc	425	3.6	mg/Kg	01/09/13	EK	SW6010
Percent Solid	87		%	01/07/13	JL	E160.3
Total Cyanide	0.61	0.52	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	76	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	76	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	84		%	01/08/13	AW	30 - 150 %
% TCMX	58		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND*	23	ug/Kg	01/09/13	MH	SW8081
4,4' -DDE	ND*	23	ug/Kg	01/09/13	MH	SW8081
4,4' -DDT	ND*	23	ug/Kg	01/09/13	MH	SW8081
a-BHC	ND*	36	ug/Kg	01/09/13	MH	SW8081
Alachlor	ND*	36	ug/Kg	01/09/13	MH	SW8081
Aldrin	ND*	11	ug/Kg	01/09/13	MH	SW8081
b-BHC	ND*	36	ug/Kg	01/09/13	MH	SW8081
Chlordane	ND*	110	ug/Kg	01/09/13	MH	SW8081
d-BHC	ND*	36	ug/Kg	01/09/13	MH	SW8081
Dieldrin	ND*	11	ug/Kg	01/09/13	MH	SW8081
Endosulfan I	ND*	36	ug/Kg	01/09/13	MH	SW8081
Endosulfan II	ND*	72	ug/Kg	01/09/13	MH	SW8081
Endosulfan sulfate	ND*	72	ug/Kg	01/09/13	MH	SW8081
Endrin	ND*	72	ug/Kg	01/09/13	MH	SW8081
Endrin aldehyde	ND*	72	ug/Kg	01/09/13	MH	SW8081
Endrin ketone	ND*	72	ug/Kg	01/09/13	MH	SW8081
g-BHC	ND*	11	ug/Kg	01/09/13	MH	SW8081
Heptachlor	ND*	23	ug/Kg	01/09/13	MH	SW8081
Heptachlor epoxide	ND*	36	ug/Kg	01/09/13	MH	SW8081
Methoxychlor	ND*	360	ug/Kg	01/09/13	MH	SW8081
Toxaphene	ND*	360	ug/Kg	01/09/13	MH	SW8081

QA/QC Surrogates

% DCBP	114		%	01/09/13	MH	30 - 150 %
% TCMX	91		%	01/09/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,1,1-Trichloroethane	ND	590	ug/Kg	01/08/13	R/J	SW8260

Client ID: B2 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	350	ug/Kg	01/08/13	R/J	SW8260
1,1,2-Trichloroethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,1-Dichloroethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,1-Dichloroethene	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,1-Dichloropropene	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260 1P
1,2,3-Trichloropropane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,2,4-Trimethylbenzene	32000	1400	ug/Kg	01/08/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,2-Dibromoethane	ND	590	ug/Kg	01/08/13	R/J	SW8260 1P
1,2-Dichlorobenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,2-Dichloroethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,2-Dichloropropane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,3,5-Trimethylbenzene	11000	590	ug/Kg	01/08/13	R/J	SW8260
1,3-Dichlorobenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,3-Dichloropropane	ND	590	ug/Kg	01/08/13	R/J	SW8260
1,4-Dichlorobenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
2,2-Dichloropropane	ND	590	ug/Kg	01/08/13	R/J	SW8260
2-Chlorotoluene	ND	590	ug/Kg	01/08/13	R/J	SW8260
2-Hexanone	ND	2900	ug/Kg	01/08/13	R/J	SW8260
2-Isopropyltoluene	ND	590	ug/Kg	01/08/13	R/J	SW8260 1
4-Chlorotoluene	ND	590	ug/Kg	01/08/13	R/J	SW8260
4-Methyl-2-pentanone	ND	2900	ug/Kg	01/08/13	R/J	SW8260
Acetone	ND	12000	ug/Kg	01/08/13	R/J	SW8260
Acrylonitrile	ND	590	ug/Kg	01/08/13	R/J	SW8260
Benzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Bromobenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Bromochloromethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Bromodichloromethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Bromoform	ND	590	ug/Kg	01/08/13	R/J	SW8260
Bromomethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Carbon Disulfide	ND	590	ug/Kg	01/08/13	R/J	SW8260
Carbon tetrachloride	ND	590	ug/Kg	01/08/13	R/J	SW8260
Chlorobenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Chloroethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Chloroform	ND	590	ug/Kg	01/08/13	R/J	SW8260
Chloromethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	590	ug/Kg	01/08/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	590	ug/Kg	01/08/13	R/J	SW8260 1
Dibromochloromethane	ND	350	ug/Kg	01/08/13	R/J	SW8260
Dibromomethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Dichlorodifluoromethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Ethylbenzene	2200	590	ug/Kg	01/08/13	R/J	SW8260
Hexachlorobutadiene	ND	590	ug/Kg	01/08/13	R/J	SW8260 1P
Isopropylbenzene	800	590	ug/Kg	01/08/13	R/J	SW8260
m&p-Xylene	16000	590	ug/Kg	01/08/13	R/J	SW8260
Methyl Ethyl Ketone	ND	3500	ug/Kg	01/08/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	1200	ug/Kg	01/08/13	R/J	SW8260
Methylene chloride	ND	590	ug/Kg	01/08/13	R/J	SW8260

Client ID: B2 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	4100	590	ug/Kg	01/08/13	R/J	SW8260
n-Butylbenzene	1400	590	ug/Kg	01/08/13	R/J	SW8260
n-Propylbenzene	3400	590	ug/Kg	01/08/13	R/J	SW8260
o-Xylene	ND	590	ug/Kg	01/08/13	R/J	SW8260
p-Isopropyltoluene	ND	590	ug/Kg	01/08/13	R/J	SW8260
sec-Butylbenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Styrene	ND	590	ug/Kg	01/08/13	R/J	SW8260
tert-Butylbenzene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Tetrachloroethene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	1200	ug/Kg	01/08/13	R/J	SW8260
Toluene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Total Xylenes	16000	590	ug/Kg	01/08/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	590	ug/Kg	01/08/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	590	ug/Kg	01/08/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	1200	ug/Kg	01/08/13	R/J	SW8260
Trichloroethene	ND	590	ug/Kg	01/08/13	R/J	SW8260
Trichlorofluoromethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Trichlorotrifluoroethane	ND	590	ug/Kg	01/08/13	R/J	SW8260
Vinyl chloride	ND	590	ug/Kg	01/08/13	R/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	101		%	01/08/13	R/J	70 - 130 %
% Bromofluorobenzene	99		%	01/08/13	R/J	70 - 130 %
% Dibromofluoromethane	93		%	01/08/13	R/J	70 - 130 %
% Toluene-d8	100		%	01/08/13	R/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	1900	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	3100	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	13000	1300	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	1300	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	3100	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	1900	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	1300	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	3100	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	5500	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	1900	ug/Kg	01/08/13	DD	SW 8270

Client ID: B2 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	1300	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	1300	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	3100	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	5500	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	2100	1300	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	5500	ug/Kg	01/08/13	DD	SW 8270
Anthracene	8000	1300	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	31000	1300	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	2300	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	25000	1300	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	32000	1300	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	10000	1300	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	11000	1300	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	5500	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	1900	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	2900	ug/Kg	01/08/13	DD	SW 8270
Chrysene	29000	1300	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	2900	1300	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	73000	1300	ug/Kg	01/08/13	DD	SW 8270
Fluorene	2200	1300	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	9600	1300	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	14000	1300	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	1300	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	1900	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	1300	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	1900	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	1900	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	1900	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	41000	1300	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	1300	ug/Kg	01/08/13	DD	SW 8270
Pyrene	80000	1300	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	1900	ug/Kg	01/08/13	DD	SW 8270

10

QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	93		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	70		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	85		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	89		%	01/08/13	DD	30 - 130 %
% Phenol-d5	96		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	111		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

* For Pesticides, due to matrix interference from non target compounds in the sample an elevated RL was reported.

* Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the semivolatile analysis.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16138

Project ID: 291 METROPOLITAN AVE.
 Client ID: B2 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	01/08/13	EK	SW6010
Aluminum	10800	50	mg/Kg	01/09/13	EK	SW6010
Arsenic	1.8	0.7	mg/Kg	01/08/13	EK	SW6010
Barium	46.0	0.33	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.56	0.27	mg/Kg	01/08/13	EK	SW6010
Calcium	825	5.0	mg/Kg	01/08/13	EK	SW6010
Cadmium	< 0.33	0.33	mg/Kg	01/08/13	EK	SW6010
Cobalt	4.72	0.33	mg/Kg	01/08/13	EK	SW6010
Chromium	26.0	0.33	mg/Kg	01/08/13	EK	SW6010
Copper	18.3	0.33	mg/kg	01/08/13	EK	SW6010
Iron	12000	50	mg/Kg	01/09/13	EK	SW6010
Mercury	< 0.08	0.08	mg/Kg	01/08/13	RS	SW-7471
Potassium	1360	5.0	mg/Kg	01/08/13	EK	SW6010
Magnesium	2170	5.0	mg/Kg	01/08/13	EK	SW6010
Manganese	226	3.3	mg/Kg	01/09/13	EK	SW6010
Sodium	105	5.0	mg/Kg	01/08/13	EK	SW6010
Nickel	12.4	0.33	mg/Kg	01/08/13	EK	SW6010
Lead	11.0	0.33	mg/Kg	01/08/13	EK	SW6010
Antimony	< 3.3	3.3	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.3	1.3	mg/Kg	01/08/13	EK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.5	0.5	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	41.1	0.33	mg/Kg	01/08/13	EK	SW6010
Zinc	38.2	0.33	mg/Kg	01/08/13	EK	SW6010
Percent Solid	89		%	01/07/13	JL	E160.3
Total Cyanide	< 0.56	0.56	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	73	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	77		%	01/08/13	AW	30 - 150 %
% TCMX	58		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.2	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	11	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.0	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.2	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	35	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	35	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	73		%	01/08/13	MH	30 - 150 %
% TCMX	59		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	23	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	23	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	23	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Benzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	2.7	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.1	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	4.6	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	9.1	ug/Kg	01/07/13	H/J	SW8260
Toluene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.1	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	4.6	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	100		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	94		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	90		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	96		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	250	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	250	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	360	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	250	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	250	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	580	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	250	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	250	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	250	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	250	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	250	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	580	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	250	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	580	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	360	ug/Kg	01/08/13	DD	SW 8270

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	250	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	580	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	250	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	440	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	250	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	360	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	540	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	250	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	250	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	250	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	250	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	250	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	250	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	250	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	250	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	360	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	360	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	360	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	360	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	250	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	360	ug/Kg	01/08/13	DD	SW 8270

10

QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	97		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	77		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	83		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	77		%	01/08/13	DD	30 - 130 %
% Phenol-d5	82		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	86		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

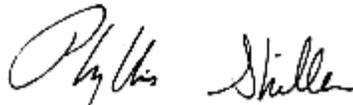
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16139

Project ID: 291 METROPOLITAN AVE.
 Client ID: B3 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	01/08/13	EK	SW6010
Aluminum	11900	55	mg/Kg	01/09/13	EK	SW6010
Arsenic	7.3	0.7	mg/Kg	01/08/13	EK	SW6010
Barium	179	0.37	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.35	0.29	mg/Kg	01/08/13	EK	SW6010
Calcium	1860	5.5	mg/Kg	01/08/13	EK	SW6010
Cadmium	< 0.37	0.37	mg/Kg	01/08/13	EK	SW6010
Cobalt	4.87	0.37	mg/Kg	01/08/13	EK	SW6010
Chromium	22.8	0.37	mg/Kg	01/08/13	EK	SW6010
Copper	70.9	0.37	mg/kg	01/08/13	EK	SW6010
Iron	17800	55	mg/Kg	01/09/13	EK	SW6010
Mercury	1.57	0.09	mg/Kg	01/08/13	RS	SW-7471
Potassium	961	5.5	mg/Kg	01/08/13	EK	SW6010
Magnesium	2110	5.5	mg/Kg	01/08/13	EK	SW6010
Manganese	269	3.7	mg/Kg	01/09/13	EK	SW6010
Sodium	225	5.5	mg/Kg	01/08/13	EK	SW6010
Nickel	13.5	0.37	mg/Kg	01/08/13	EK	SW6010
Lead	518	3.7	mg/Kg	01/09/13	EK	SW6010
Antimony	< 3.7	3.7	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.5	1.5	mg/Kg	01/08/13	EK	SW6010
TCLP Lead	0.54	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.6	0.6	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	28.8	0.37	mg/Kg	01/08/13	EK	SW6010
Zinc	145	3.7	mg/Kg	01/09/13	EK	SW6010
Percent Solid	86		%	01/07/13	JL	E160.3
Total Cyanide	< 0.58	0.58	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	77	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	77	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	87		%	01/08/13	AW	30 - 150 %
% TCMX	44		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.3	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.3	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.3	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.7	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.7	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.2	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.7	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	12	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.7	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.2	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.7	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.4	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.4	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.4	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.4	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.4	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.2	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.3	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.7	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	37	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	37	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	77		%	01/08/13	MH	30 - 150 %
% TCMX	63		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	31	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	31	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	31	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Benzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	3.8	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	38	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	6.3	ug/Kg	01/07/13	H/J	SW8260

Client ID: B3 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	13	ug/Kg	01/07/13	H/J	SW8260
Toluene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	6.3	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	101		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	89		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	93		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	99		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	390	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	620	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	270	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	620	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	270	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	620	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	390	ug/Kg	01/08/13	DD	SW 8270

Client ID: B3 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	270	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	620	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	270	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	460	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	390	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	580	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	270	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	270	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	270	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	270	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	270	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	390	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	270	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	390	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	390	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	390	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	270	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	270	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	390	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	103		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	81		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	87		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	82		%	01/08/13	DD	30 - 130 %
% Phenol-d5	85		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	89		%	01/08/13	DD	30 - 130 %

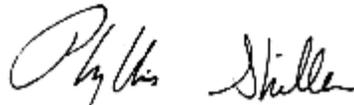
1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.
1P = This parameter is pending certification by NY NELAC for this matrix.
1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16140

Project ID: 291 METROPOLITAN AVE.
 Client ID: B3 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	01/08/13	EK	SW6010
Aluminum	12200	51	mg/Kg	01/09/13	EK	SW6010
Arsenic	1.3	0.7	mg/Kg	01/08/13	EK	SW6010
Barium	59.9	0.34	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.62	0.27	mg/Kg	01/08/13	EK	SW6010
Calcium	552	5.1	mg/Kg	01/08/13	EK	SW6010
Cadmium	< 0.34	0.34	mg/Kg	01/08/13	EK	SW6010
Cobalt	8.70	0.34	mg/Kg	01/08/13	EK	SW6010
Chromium	37.8	0.34	mg/Kg	01/08/13	EK	SW6010
Copper	16.7	0.34	mg/kg	01/08/13	EK	SW6010
Iron	42700	51	mg/Kg	01/09/13	EK	SW6010
Mercury	< 0.08	0.08	mg/Kg	01/08/13	RS	SW-7471
Potassium	1880	5.1	mg/Kg	01/08/13	EK	SW6010
Magnesium	3370	5.1	mg/Kg	01/08/13	EK	SW6010
Manganese	355	3.4	mg/Kg	01/09/13	EK	SW6010
Sodium	129	5.1	mg/Kg	01/08/13	EK	SW6010
Nickel	17.7	0.34	mg/Kg	01/08/13	EK	SW6010
Lead	11.0	0.34	mg/Kg	01/08/13	EK	SW6010
Antimony	< 5.0	5.0	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	01/08/13	LK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.5	0.5	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	51.3	0.34	mg/Kg	01/08/13	EK	SW6010
Zinc	68.5	0.34	mg/Kg	01/08/13	EK	SW6010
Percent Solid	89		%	01/07/13	JL	E160.3
Total Cyanide	< 0.51	0.51	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	73	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	82		%	01/08/13	AW	30 - 150 %
% TCMX	46		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.2	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	11	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.0	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.2	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	35	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	35	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	76		%	01/08/13	MH	30 - 150 %
% TCMX	62		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	3.3	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	28	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	28	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	28	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Benzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	3.3	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	33	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	5.6	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	01/07/13	H/J	SW8260
Toluene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	5.6	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	99		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	94		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	89		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	96		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	590	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	01/08/13	DD	SW 8270

Client ID: B3 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	440	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	370	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	550	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	370	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	102		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	79		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	87		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	84		%	01/08/13	DD	30 - 130 %
% Phenol-d5	86		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	90		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

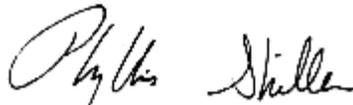
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16141

Project ID: 291 METROPOLITAN AVE.
 Client ID: B4 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	01/08/13	EK	SW6010
Aluminum	9420	58	mg/Kg	01/09/13	EK	SW6010
Arsenic	4.1	0.8	mg/Kg	01/08/13	EK	SW6010
Barium	83.9	0.38	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.31	0.31	mg/Kg	01/08/13	EK	SW6010
Calcium	27800	58	mg/Kg	01/09/13	EK	SW6010
Cadmium	< 0.38	0.38	mg/Kg	01/08/13	EK	SW6010
Cobalt	3.10	0.38	mg/Kg	01/08/13	EK	SW6010
Chromium	10.8	0.38	mg/Kg	01/08/13	EK	SW6010
Copper	13.9	0.38	mg/kg	01/08/13	EK	SW6010
Iron	11200	58	mg/Kg	01/09/13	EK	SW6010
Mercury	< 0.08	0.08	mg/Kg	01/08/13	RS	SW-7471
Potassium	938	5.8	mg/Kg	01/08/13	EK	SW6010
Magnesium	2330	5.8	mg/Kg	01/08/13	EK	SW6010
Manganese	260	3.8	mg/Kg	01/09/13	EK	SW6010
Sodium	1190	5.8	mg/Kg	01/08/13	EK	SW6010
Nickel	7.88	0.38	mg/Kg	01/08/13	EK	SW6010
Lead	55.5	0.38	mg/Kg	01/08/13	EK	SW6010
Antimony	< 3.8	3.8	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.5	1.5	mg/Kg	01/08/13	EK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.6	0.6	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	18.0	0.38	mg/Kg	01/08/13	EK	SW6010
Zinc	50.4	0.38	mg/Kg	01/08/13	EK	SW6010
Percent Solid	89		%	01/07/13	JL	E160.3
Total Cyanide	< 0.56	0.56	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	74	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	82		%	01/08/13	AW	30 - 150 %
% TCMX	46		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.2	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	11	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.1	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.2	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	35	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	35	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	69		%	01/08/13	MH	30 - 150 %
% TCMX	60		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	31	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	31	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	31	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Benzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	3.7	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	37	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	6.2	ug/Kg	01/07/13	H/J	SW8260

Client ID: B4 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	12	ug/Kg	01/07/13	H/J	SW8260
Toluene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	6.2	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	100		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	92		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	89		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	95		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	590	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	01/08/13	DD	SW 8270

Client ID: B4 0-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	450	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	370	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	560	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	370	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	106		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	83		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	90		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	85		%	01/08/13	DD	30 - 130 %
% Phenol-d5	89		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	94		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

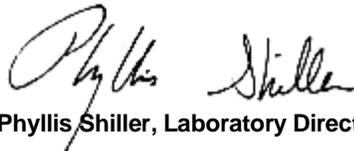
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16142

Project ID: 291 METROPOLITAN AVE.
 Client ID: B5 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	01/08/13	EK	SW6010
Aluminum	9030	61	mg/Kg	01/09/13	EK	SW6010
Arsenic	11.6	0.8	mg/Kg	01/08/13	EK	SW6010
Barium	176	0.41	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.33	0.32	mg/Kg	01/08/13	EK	SW6010
Calcium	27000	61	mg/Kg	01/09/13	EK	SW6010
Cadmium	0.75	0.41	mg/Kg	01/08/13	EK	SW6010
Cobalt	6.31	0.41	mg/Kg	01/08/13	EK	SW6010
Chromium	17.3	0.41	mg/Kg	01/08/13	EK	SW6010
Copper	58.4	0.41	mg/kg	01/08/13	EK	SW6010
Iron	18100	61	mg/Kg	01/09/13	EK	SW6010
Mercury	0.61	0.07	mg/Kg	01/08/13	RS	SW-7471
Potassium	1120	6.1	mg/Kg	01/08/13	EK	SW6010
Magnesium	2220	6.1	mg/Kg	01/08/13	EK	SW6010
Manganese	359	4.1	mg/Kg	01/09/13	EK	SW6010
Sodium	364	6.1	mg/Kg	01/08/13	EK	SW6010
Nickel	18.3	0.41	mg/Kg	01/08/13	EK	SW6010
Lead	346	4.1	mg/Kg	01/09/13	EK	SW6010
Antimony	< 4.1	4.1	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.6	1.6	mg/Kg	01/08/13	LK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.6	0.6	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	25.6	0.41	mg/Kg	01/08/13	EK	SW6010
Zinc	327	4.1	mg/Kg	01/09/13	EK	SW6010
Percent Solid	81		%	01/07/13	JL	E160.3
Total Cyanide	< 0.56	0.56	mg/Kg	01/07/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	82	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	82	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	72		%	01/08/13	AW	30 - 150 %
% TCMX	33		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.5	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.5	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.5	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.9	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.9	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.2	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.9	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	12	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.9	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.2	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.9	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.9	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.9	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.9	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.9	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.9	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.2	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.5	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.9	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	39	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	39	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	64		%	01/08/13	MH	30 - 150 %
% TCMX	52		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	11	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	6.9	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	12	11	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	11	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	11	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	11	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	11	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	57	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	11	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	11	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	57	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	46	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	11	ug/Kg	01/07/13	H/J	SW8260
Benzene	16	11	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	11	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	11	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	11	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	11	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	11	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	11	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	6.9	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	11	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	45	11	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	69	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	23	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	11	ug/Kg	01/07/13	H/J	SW8260

Client ID: B5 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	11	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	13	11	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	11	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	11	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	23	ug/Kg	01/07/13	H/J	SW8260
Toluene	60	11	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	58	11	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	11	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	11	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	23	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	11	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	11	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	11	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	99		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	90		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	95		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	103		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	280	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	280	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	400	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	280	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	280	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	640	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	280	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	280	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	280	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	910	280	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	280	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	640	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	280	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	640	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	400	ug/Kg	01/08/13	DD	SW 8270

Client ID: B5 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	280	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	640	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1200	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	1300	280	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	280	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	280	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1200	ug/Kg	01/08/13	DD	SW 8270
Anthracene	3000	280	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	7200	280	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	480	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	5800	280	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	8200	280	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	3000	280	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	2200	280	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1200	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	280	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	400	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	01/08/13	DD	SW 8270
Carbazole	2500	600	ug/Kg	01/08/13	DD	SW 8270
Chrysene	7400	280	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	1200	280	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	1600	280	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	280	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	280	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	280	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	280	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	26000	280	ug/Kg	01/08/13	DD	SW 8270
Fluorene	1200	280	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	280	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	280	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	280	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	280	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	3000	280	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	280	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	1900	280	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	280	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	400	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	400	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	400	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	400	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	24000	280	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	280	ug/Kg	01/08/13	DD	SW 8270
Pyrene	20000	280	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	400	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	104		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	80		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	86		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	90		%	01/08/13	DD	30 - 130 %
% Phenol-d5	92		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	85		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

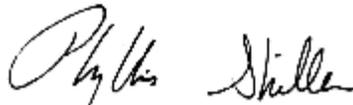
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date

01/04/13
 01/07/13

Time

0:00
 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16143

Project ID: 291 METROPOLITAN AVE.
 Client ID: B5 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	01/08/13	EK	SW6010
Aluminum	6710	51	mg/Kg	01/09/13	EK	SW6010
Arsenic	2.0	0.7	mg/Kg	01/08/13	EK	SW6010
Barium	15.2	0.34	mg/Kg	01/08/13	EK	SW6010
Beryllium	< 0.27	0.27	mg/Kg	01/08/13	EK	SW6010
Calcium	931	5.1	mg/Kg	01/08/13	EK	SW6010
Cadmium	< 0.34	0.34	mg/Kg	01/08/13	EK	SW6010
Cobalt	3.96	0.34	mg/Kg	01/08/13	EK	SW6010
Chromium	13.7	0.34	mg/Kg	01/08/13	EK	SW6010
Copper	14.8	0.34	mg/kg	01/08/13	EK	SW6010
Iron	7490	51	mg/Kg	01/09/13	EK	SW6010
Mercury	< 0.09	0.09	mg/Kg	01/08/13	RS	SW-7471
Potassium	792	5.1	mg/Kg	01/08/13	EK	SW6010
Magnesium	1810	5.1	mg/Kg	01/08/13	EK	SW6010
Manganese	117	0.34	mg/Kg	01/08/13	EK	SW6010
Sodium	80.5	5.1	mg/Kg	01/08/13	EK	SW6010
Nickel	12.2	0.34	mg/Kg	01/08/13	EK	SW6010
Lead	6.65	0.34	mg/Kg	01/08/13	EK	SW6010
Antimony	< 3.4	3.4	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	01/08/13	EK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.5	0.5	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	18.2	0.34	mg/Kg	01/08/13	EK	SW6010
Zinc	41.6	0.34	mg/Kg	01/08/13	EK	SW6010
Percent Solid	90		%	01/07/13	JL	E160.3
Total Cyanide	< 0.51	0.51	mg/Kg	01/08/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	74	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	74	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	76		%	01/08/13	AW	30 - 150 %
% TCMX	47		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.2	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	11	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.1	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.1	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.2	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.6	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	36	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	36	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	72		%	01/08/13	MH	30 - 150 %
% TCMX	59		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	24	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	24	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	48	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Benzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	2.9	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	29	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.7	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	4.8	ug/Kg	01/07/13	H/J	SW8260

Client ID: B5 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	9.7	ug/Kg	01/07/13	H/J	SW8260
Toluene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.7	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	4.8	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	99		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	96		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	95		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	96		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	590	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	01/08/13	DD	SW 8270

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	590	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	440	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	370	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	550	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	370	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	99		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	76		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	86		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	82		%	01/08/13	DD	30 - 130 %
% Phenol-d5	83		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	87		%	01/08/13	DD	30 - 130 %

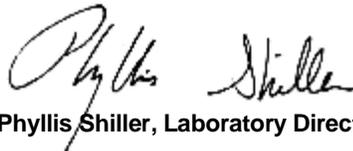
1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.
1P = This parameter is pending certification by NY NELAC for this matrix.
1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16144

Project ID: 291 METROPOLITAN AVE.
 Client ID: DUPLICATE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	01/08/13	EK	SW6010
Aluminum	9320	59	mg/Kg	01/09/13	EK	SW6010
Arsenic	1.3	0.8	mg/Kg	01/08/13	EK	SW6010
Barium	64.5	0.39	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.44	0.31	mg/Kg	01/08/13	EK	SW6010
Calcium	1160	5.9	mg/Kg	01/08/13	EK	SW6010
Cadmium	< 0.39	0.39	mg/Kg	01/08/13	EK	SW6010
Cobalt	5.44	0.39	mg/Kg	01/08/13	EK	SW6010
Chromium	21.5	0.39	mg/Kg	01/08/13	EK	SW6010
Copper	21.1	0.39	mg/kg	01/08/13	EK	SW6010
Iron	12100	59	mg/Kg	01/09/13	EK	SW6010
Mercury	< 0.09	0.09	mg/Kg	01/08/13	RS	SW-7471
Potassium	1680	5.9	mg/Kg	01/08/13	EK	SW6010
Magnesium	2620	5.9	mg/Kg	01/08/13	EK	SW6010
Manganese	141	0.39	mg/Kg	01/08/13	EK	SW6010
Sodium	121	5.9	mg/Kg	01/08/13	EK	SW6010
Nickel	14.0	0.39	mg/Kg	01/08/13	EK	SW6010
Lead	11.1	0.39	mg/Kg	01/08/13	EK	SW6010
Antimony	< 3.9	3.9	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.6	1.6	mg/Kg	01/08/13	EK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.6	0.6	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	38.5	0.39	mg/Kg	01/08/13	EK	SW6010
Zinc	46.8	0.39	mg/Kg	01/08/13	EK	SW6010
Percent Solid	89		%	01/07/13	JL	E160.3
Total Cyanide	< 0.56	0.56	mg/Kg	01/08/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	73	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	73	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	85		%	01/08/13	AW	30 - 150 %
% TCMX	44		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	2.2	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.6	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	11	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	7.0	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	7.0	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	2.2	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	35	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	35	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	72		%	01/08/13	MH	30 - 150 %
% TCMX	60		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,1,1-Trichloroethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260

Client ID: DUPLICATE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	5.3	ug/Kg	01/07/13	H/J	SW8260
1,1,2-Trichloroethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloroethene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,1-Dichloropropene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260 1P
1,2,3-Trichloropropane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dibromoethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260 1P
1,2-Dichlorobenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloroethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,2-Dichloropropane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichlorobenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,3-Dichloropropane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
1,4-Dichlorobenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
2,2-Dichloropropane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
2-Chlorotoluene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
2-Hexanone	ND	44	ug/Kg	01/07/13	H/J	SW8260
2-Isopropyltoluene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260 1
4-Chlorotoluene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
4-Methyl-2-pentanone	ND	44	ug/Kg	01/07/13	H/J	SW8260
Acetone	ND	44	ug/Kg	01/07/13	H/J	SW8260
Acrylonitrile	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Benzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Bromobenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Bromochloromethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Bromodichloromethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Bromoform	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Bromomethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Carbon Disulfide	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Carbon tetrachloride	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Chlorobenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Chloroethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Chloroform	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Chloromethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260 1
Dibromochloromethane	ND	5.3	ug/Kg	01/07/13	H/J	SW8260
Dibromomethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Dichlorodifluoromethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Ethylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Hexachlorobutadiene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260 1P
Isopropylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
m&p-Xylene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Methyl Ethyl Ketone	ND	53	ug/Kg	01/07/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	18	ug/Kg	01/07/13	H/J	SW8260
Methylene chloride	ND	8.9	ug/Kg	01/07/13	H/J	SW8260

Client ID: DUPLICATE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
n-Butylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
n-Propylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
o-Xylene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
p-Isopropyltoluene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
sec-Butylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Styrene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
tert-Butylbenzene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Tetrachloroethene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	18	ug/Kg	01/07/13	H/J	SW8260
Toluene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Total Xylenes	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	18	ug/Kg	01/07/13	H/J	SW8260
Trichloroethene	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Trichlorofluoromethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Trichlorotrifluoroethane	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
Vinyl chloride	ND	8.9	ug/Kg	01/07/13	H/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	98		%	01/07/13	H/J	70 - 130 %
% Bromofluorobenzene	93		%	01/07/13	H/J	70 - 130 %
% Dibromofluoromethane	90		%	01/07/13	H/J	70 - 130 %
% Toluene-d8	97		%	01/07/13	H/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	600	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	600	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	600	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	01/08/13	DD	SW 8270

Client ID: DUPLICATE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	600	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	450	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	370	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	560	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	370	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	106		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	84		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	93		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	89		%	01/08/13	DD	30 - 130 %
% Phenol-d5	89		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	93		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

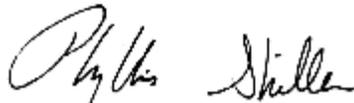
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16145

Project ID: 291 METROPOLITAN AVE.
 Client ID: B5 18-20

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Percent Solid	88		%	01/07/13	JL	E160.3
Soil Extraction SVOA BN	Completed			01/07/13	JJ/V	SW3545
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311

Volatiles- STARS/CP-51

1,2,4-Trimethylbenzene	14000	290	ug/Kg	01/09/13	R/J	8021/8260
1,3,5-Trimethylbenzene	6500	58	ug/Kg	01/09/13	R/J	8021/8260
Benzene	ND	120	ug/Kg	01/09/13	R/J	8021/8260
Ethylbenzene	410	120	ug/Kg	01/09/13	R/J	8021/8260
Isopropylbenzene	750	58	ug/Kg	01/09/13	R/J	8021/8260
m&p-Xylene	1100	120	ug/Kg	01/09/13	R/J	8021/8260
Methyl t-Butyl Ether (MTBE)	ND	58	ug/Kg	01/09/13	R/J	8021/8260
Naphthalene	670	58	ug/Kg	01/09/13	R/J	8021/8260
n-Butylbenzene	1900	58	ug/Kg	01/09/13	R/J	8021/8260
n-Propylbenzene	2700	58	ug/Kg	01/09/13	R/J	8021/8260
o-Xylene	150	120	ug/Kg	01/09/13	R/J	8021/8260
p-Isopropyltoluene	510	58	ug/Kg	01/09/13	R/J	8021/8260
sec-Butylbenzene	720	58	ug/Kg	01/09/13	R/J	8021/8260
tert-Butylbenzene	ND	58	ug/Kg	01/09/13	R/J	8021/8260
Toluene	ND	120	ug/Kg	01/09/13	R/J	8021/8260
Total Xylenes	1250	120	ug/Kg	01/09/13	R/J	8021/8260

QA/QC Surrogates

% 1,2-Dichlorobenzene-d4	98		%	01/09/13	R/J	8021/8260
% Bromofluorobenzene	111		%	01/09/13	R/J	8021/8260
% Dibromofluoromethane	90		%	01/09/13	R/J	8021/8260
% Toluene-d8	102		%	01/09/13	R/J	8021/8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
<u>Semivolatiles-STARs/CP-51</u>						
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
<u>QA/QC Surrogates</u>						
% 2-Fluorobiphenyl	85		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	75		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	117		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

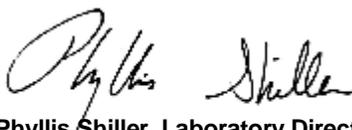
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
 BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16146

Project ID: 291 METROPOLITAN AVE.
 Client ID: B4 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	01/08/13	EK	SW6010
Aluminum	8270	56	mg/Kg	01/09/13	EK	SW6010
Arsenic	1.5	0.7	mg/Kg	01/08/13	EK	SW6010
Barium	69.7	0.37	mg/Kg	01/08/13	EK	SW6010
Beryllium	0.38	0.30	mg/Kg	01/08/13	EK	SW6010
Calcium	798	5.6	mg/Kg	01/08/13	EK	SW6010
Cadmium	< 0.37	0.37	mg/Kg	01/08/13	EK	SW6010
Cobalt	13.9	0.37	mg/Kg	01/08/13	EK	SW6010
Chromium	21.4	0.37	mg/Kg	01/08/13	EK	SW6010
Copper	13.4	0.37	mg/kg	01/08/13	EK	SW6010
Iron	22800	56	mg/Kg	01/09/13	EK	SW6010
Mercury	< 0.08	0.08	mg/Kg	01/08/13	RS	SW-7471
Potassium	1180	5.6	mg/Kg	01/08/13	EK	SW6010
Magnesium	2100	5.6	mg/Kg	01/08/13	EK	SW6010
Manganese	1190	3.7	mg/Kg	01/09/13	EK	SW6010
Sodium	78.8	5.6	mg/Kg	01/08/13	EK	SW6010
Nickel	14.4	0.37	mg/Kg	01/08/13	EK	SW6010
Lead	7.93	0.37	mg/Kg	01/08/13	EK	SW6010
Antimony	< 3.7	3.7	mg/Kg	01/08/13	EK	SW6010
Selenium	< 1.5	1.5	mg/Kg	01/08/13	LK	SW6010
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
Thallium	< 0.6	0.6	mg/Kg	01/08/13	EK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Vanadium	30.0	0.37	mg/Kg	01/08/13	EK	SW6010
Zinc	40.4	0.37	mg/Kg	01/08/13	EK	SW6010
Percent Solid	91		%	01/07/13	JL	E160.3
Total Cyanide	< 0.55	0.55	mg/Kg	01/08/13	O/G/M	SW 9010/9012
Soil Extraction for PCB	Completed			01/07/13	BB	SW3545

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Soil Extraction for Pesticide	Completed			01/07/13	BB	SW3545
Soil Extraction for SVOA	Completed			01/07/13	JJ/V	SW3545
Mercury Digestion	Completed			01/08/13	X/X	SW7471
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311
Total Metals Digest	Completed			01/07/13	AG	SW846 - 3050
Field Extraction	Completed			01/04/13		SW5035

Polychlorinated Biphenyls

PCB-1016	ND	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1221	ND	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1232	ND	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1242	ND	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1248	ND	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1254	ND	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1260	43	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1262	ND	36	ug/Kg	01/08/13	AW	SW 8082
PCB-1268	ND	36	ug/Kg	01/08/13	AW	SW 8082

QA/QC Surrogates

% DCBP	67		%	01/08/13	AW	30 - 150 %
% TCMX	55		%	01/08/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	1.1	ug/Kg	01/08/13	MH	SW8081
4,4' -DDE	ND	1.1	ug/Kg	01/08/13	MH	SW8081
4,4' -DDT	ND	2.7	ug/Kg	01/08/13	MH	SW8081
a-BHC	ND	1.8	ug/Kg	01/08/13	MH	SW8081
Alachlor	ND	1.8	ug/Kg	01/08/13	MH	SW8081
Aldrin	ND	0.55	ug/Kg	01/08/13	MH	SW8081
b-BHC	ND	1.8	ug/Kg	01/08/13	MH	SW8081
Chlordane	ND	5.5	ug/Kg	01/08/13	MH	SW8081
d-BHC	ND	1.8	ug/Kg	01/08/13	MH	SW8081
Dieldrin	ND	0.55	ug/Kg	01/08/13	MH	SW8081
Endosulfan I	ND	1.8	ug/Kg	01/08/13	MH	SW8081
Endosulfan II	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endosulfan sulfate	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endrin	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endrin aldehyde	ND	3.5	ug/Kg	01/08/13	MH	SW8081
Endrin ketone	ND	3.5	ug/Kg	01/08/13	MH	SW8081
g-BHC	ND	0.55	ug/Kg	01/08/13	MH	SW8081
Heptachlor	ND	1.1	ug/Kg	01/08/13	MH	SW8081
Heptachlor epoxide	ND	1.8	ug/Kg	01/08/13	MH	SW8081
Methoxychlor	ND	18	ug/Kg	01/08/13	MH	SW8081
Toxaphene	ND	18	ug/Kg	01/08/13	MH	SW8081

QA/QC Surrogates

% DCBP	53		%	01/08/13	MH	30 - 150 %
% TCMX	39		%	01/08/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,1,1-Trichloroethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	01/09/13	R/J	SW8260
1,1,2-Trichloroethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,1-Dichloroethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,1-Dichloroethene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,1-Dichloropropene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260 1P
1,2,3-Trichloropropane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,2-Dibromoethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260 1P
1,2-Dichlorobenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,2-Dichloroethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,2-Dichloropropane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,3-Dichlorobenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,3-Dichloropropane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
1,4-Dichlorobenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
2,2-Dichloropropane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
2-Chlorotoluene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
2-Hexanone	ND	30	ug/Kg	01/09/13	R/J	SW8260
2-Isopropyltoluene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260 1
4-Chlorotoluene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
4-Methyl-2-pentanone	ND	30	ug/Kg	01/09/13	R/J	SW8260
Acetone	ND	30	ug/Kg	01/09/13	R/J	SW8260
Acrylonitrile	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Benzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Bromobenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Bromochloromethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Bromodichloromethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Bromoform	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Bromomethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Carbon Disulfide	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Carbon tetrachloride	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Chlorobenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Chloroethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Chloroform	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Chloromethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260 1
Dibromochloromethane	ND	3.7	ug/Kg	01/09/13	R/J	SW8260
Dibromomethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Dichlorodifluoromethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Ethylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Hexachlorobutadiene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260 1P
Isopropylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
m&p-Xylene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Methyl Ethyl Ketone	ND	37	ug/Kg	01/09/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	01/09/13	R/J	SW8260
Methylene chloride	ND	6.1	ug/Kg	01/09/13	R/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Naphthalene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
n-Butylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
n-Propylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
o-Xylene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
p-Isopropyltoluene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
sec-Butylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Styrene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
tert-Butylbenzene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Tetrachloroethene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	12	ug/Kg	01/09/13	R/J	SW8260
Toluene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Total Xylenes	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	01/09/13	R/J	SW8260
Trichloroethene	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Trichlorofluoromethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Trichlorotrifluoroethane	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
Vinyl chloride	ND	6.1	ug/Kg	01/09/13	R/J	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	99		%	01/09/13	R/J	70 - 130 %
% Bromofluorobenzene	99		%	01/09/13	R/J	70 - 130 %
% Dibromofluoromethane	96		%	01/09/13	R/J	70 - 130 %
% Toluene-d8	100		%	01/09/13	R/J	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,2-Diphenylhydrazine	ND	360	ug/Kg	01/08/13	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrophenol	ND	580	ug/Kg	01/08/13	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylnaphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	01/08/13	DD	SW 8270
2-Nitroaniline	ND	580	ug/Kg	01/08/13	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	01/08/13	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	01/08/13	DD	SW 8270
3-Nitroaniline	ND	580	ug/Kg	01/08/13	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
4-Bromophenyl phenyl ether	ND	360	ug/Kg	01/08/13	DD	SW 8270

Client ID: B4 10-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Chloro-3-methylphenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
4-Nitroaniline	ND	580	ug/Kg	01/08/13	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acetophenone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Aniline	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzidine	ND	440	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	01/08/13	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroethyl)ether	ND	360	ug/Kg	01/08/13	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	01/08/13	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Carbazole	ND	550	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	01/08/13	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Isophorone	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodimethylamine	ND	360	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	01/08/13	DD	SW 8270
N-Nitrosodiphenylamine	ND	360	ug/Kg	01/08/13	DD	SW 8270
Pentachloronitrobenzene	ND	360	ug/Kg	01/08/13	DD	SW 8270
Pentachlorophenol	ND	360	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenol	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyridine	ND	360	ug/Kg	01/08/13	DD	SW 8270

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QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% 2,4,6-Tribromophenol	58		%	01/08/13	DD	30 - 130 %
% 2-Fluorobiphenyl	50		%	01/08/13	DD	30 - 130 %
% 2-Fluorophenol	53		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	53		%	01/08/13	DD	30 - 130 %
% Phenol-d5	49		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	57		%	01/08/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

1P = This parameter is pending certification by NY NELAC for this matrix.

1O = This parameter is not certified by NY NELAC for this matrix.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

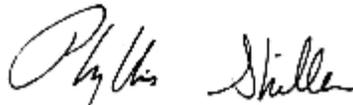
BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date: 01/04/13
 01/07/13
 Time: 0:00
 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16147

Project ID: 291 METROPOLITAN AVE.
 Client ID: B4 16-18

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Percent Solid	89		%	01/07/13	JL	E160.3
Soil Extraction SVOA BN	Completed			01/07/13	JJ/V	SW3545
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311

Volatiles- STARS/CP-51

1,2,4-Trimethylbenzene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
1,3,5-Trimethylbenzene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
Benzene	ND	1.8	ug/Kg	01/09/13	R/J	8021/8260
Ethylbenzene	ND	1.8	ug/Kg	01/09/13	R/J	8021/8260
Isopropylbenzene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
m&p-Xylene	ND	1.8	ug/Kg	01/09/13	R/J	8021/8260
Methyl t-Butyl Ether (MTBE)	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
Naphthalene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
n-Butylbenzene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
n-Propylbenzene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
o-Xylene	ND	1.8	ug/Kg	01/09/13	R/J	8021/8260
p-Isopropyltoluene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
sec-Butylbenzene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
tert-Butylbenzene	ND	0.92	ug/Kg	01/09/13	R/J	8021/8260
Toluene	ND	1.8	ug/Kg	01/09/13	R/J	8021/8260
Total Xylenes	ND	1.8	ug/Kg	01/09/13	R/J	8021/8260

QA/QC Surrogates

% 1,2-Dichlorobenzene-d4	99		%	01/09/13	R/J	8021/8260
% Bromofluorobenzene	97		%	01/09/13	R/J	8021/8260
% Dibromofluoromethane	95		%	01/09/13	R/J	8021/8260
% Toluene-d8	100		%	01/09/13	R/J	8021/8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
<u>Semivolatiles-STARs/CP-51</u>						
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
<u>QA/QC Surrogates</u>						
% 2-Fluorobiphenyl	85		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	74		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	120		%	01/08/13	DD	30 - 130 %

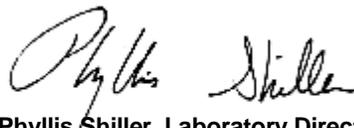
1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
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Comments:

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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date: 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16148

Project ID: 291 METROPOLITAN AVE.
 Client ID: B1 18-20

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Percent Solid	89		%	01/07/13	JL	E160.3
Soil Extraction SVOA BN	Completed			01/07/13	JJ/V	SW3545
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311

Volatiles- STARS/CP-51

1,2,4-Trimethylbenzene	ND	57	ug/Kg	01/09/13	R/J	8021/8260
1,3,5-Trimethylbenzene	ND	57	ug/Kg	01/09/13	R/J	8021/8260
Benzene	ND	110	ug/Kg	01/09/13	R/J	8021/8260
Ethylbenzene	160	110	ug/Kg	01/09/13	R/J	8021/8260
Isopropylbenzene	600	57	ug/Kg	01/09/13	R/J	8021/8260
m&p-Xylene	ND	110	ug/Kg	01/09/13	R/J	8021/8260
Methyl t-Butyl Ether (MTBE)	ND	57	ug/Kg	01/09/13	R/J	8021/8260
Naphthalene	5000	57	ug/Kg	01/09/13	R/J	8021/8260
n-Butylbenzene	940	57	ug/Kg	01/09/13	R/J	8021/8260
n-Propylbenzene	840	57	ug/Kg	01/09/13	R/J	8021/8260
o-Xylene	ND	110	ug/Kg	01/09/13	R/J	8021/8260
p-Isopropyltoluene	ND	57	ug/Kg	01/09/13	R/J	8021/8260
sec-Butylbenzene	760	57	ug/Kg	01/09/13	R/J	8021/8260
tert-Butylbenzene	98	57	ug/Kg	01/09/13	R/J	8021/8260
Toluene	ND	110	ug/Kg	01/09/13	R/J	8021/8260
Total Xylenes	ND	110	ug/Kg	01/09/13	R/J	8021/8260

QA/QC Surrogates

% 1,2-Dichlorobenzene-d4	102		%	01/09/13	R/J	8021/8260
% Bromofluorobenzene	126		%	01/09/13	R/J	8021/8260
% Dibromofluoromethane	93		%	01/09/13	R/J	8021/8260
% Toluene-d8	105		%	01/09/13	R/J	8021/8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
<u>Semivolatiles-STARs/CP-51</u>						
Acenaphthene	330	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	720	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	2900	260	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	1200	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
<u>QA/QC Surrogates</u>						
% 2-Fluorobiphenyl	85		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	78		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	117		%	01/08/13	DD	30 - 130 %

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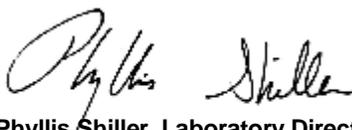
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



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 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16149

Project ID: 291 METROPOLITAN AVE.
 Client ID: B2 15-17

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Percent Solid	88		%	01/07/13	JL	E160.3
Soil Extraction SVOA BN	Completed			01/07/13	JJ/V	SW3545
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311

Volatiles- STARS/CP-51

1,2,4-Trimethylbenzene	44	1.2	ug/Kg	01/07/13	H/J	8021/8260
1,3,5-Trimethylbenzene	18	1.2	ug/Kg	01/07/13	H/J	8021/8260
Benzene	ND	2.5	ug/Kg	01/07/13	H/J	8021/8260
Ethylbenzene	ND	2.5	ug/Kg	01/07/13	H/J	8021/8260
Isopropylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
m&p-Xylene	ND	2.5	ug/Kg	01/07/13	H/J	8021/8260
Methyl t-Butyl Ether (MTBE)	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
Naphthalene	7.0	1.2	ug/Kg	01/07/13	H/J	8021/8260
n-Butylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
n-Propylbenzene	1.3	1.2	ug/Kg	01/07/13	H/J	8021/8260
o-Xylene	ND	2.5	ug/Kg	01/07/13	H/J	8021/8260
p-Isopropyltoluene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
sec-Butylbenzene	1.4	1.2	ug/Kg	01/07/13	H/J	8021/8260
tert-Butylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
Toluene	ND	2.5	ug/Kg	01/07/13	H/J	8021/8260
Total Xylenes	ND	2.5	ug/Kg	01/07/13	H/J	8021/8260

QA/QC Surrogates

% 1,2-Dichlorobenzene-d4	99		%	01/07/13	H/J	8021/8260
% Bromofluorobenzene	98		%	01/07/13	H/J	8021/8260
% Dibromofluoromethane	89		%	01/07/13	H/J	8021/8260
% Toluene-d8	97		%	01/07/13	H/J	8021/8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
<u>Semivolatiles-STARs/CP-51</u>						
Acenaphthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	260	ug/Kg	01/08/13	DD	SW 8270
<u>QA/QC Surrogates</u>						
% 2-Fluorobiphenyl	87		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	75		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	115		%	01/08/13	DD	30 - 130 %

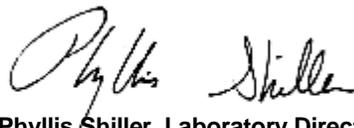
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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 14, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: SOIL
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: LB
 Analyzed by: see "By" below

Date Time
 01/04/13 0:00
 01/07/13 15:45

Laboratory Data

SDG ID: GBD16135
 Phoenix ID: BD16150

Project ID: 291 METROPOLITAN AVE.
 Client ID: B3 18-20

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	01/09/13	LK	SW6010
TCLP Metals Digestion	Completed			01/08/13	X/X	SW3005
Percent Solid	91		%	01/07/13	JL	E160.3
Soil Extraction SVOA BN	Completed			01/07/13	JJ/V	SW3545
TCLP Extraction for Metals	Completed			01/07/13	X	EPA 1311

Volatiles- STARS/CP-51

1,2,4-Trimethylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
1,3,5-Trimethylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
Benzene	ND	2.4	ug/Kg	01/07/13	H/J	8021/8260
Ethylbenzene	ND	2.4	ug/Kg	01/07/13	H/J	8021/8260
Isopropylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
m&p-Xylene	ND	2.4	ug/Kg	01/07/13	H/J	8021/8260
Methyl t-Butyl Ether (MTBE)	41	1.2	ug/Kg	01/07/13	H/J	8021/8260
Naphthalene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
n-Butylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
n-Propylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
o-Xylene	ND	2.4	ug/Kg	01/07/13	H/J	8021/8260
p-Isopropyltoluene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
sec-Butylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
tert-Butylbenzene	ND	1.2	ug/Kg	01/07/13	H/J	8021/8260
Toluene	ND	2.4	ug/Kg	01/07/13	H/J	8021/8260
Total Xylenes	ND	2.4	ug/Kg	01/07/13	H/J	8021/8260

QA/QC Surrogates

% 1,2-Dichlorobenzene-d4	98		%	01/07/13	H/J	8021/8260
% Bromofluorobenzene	94		%	01/07/13	H/J	8021/8260
% Dibromofluoromethane	90		%	01/07/13	H/J	8021/8260
% Toluene-d8	97		%	01/07/13	H/J	8021/8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
<u>Semivolatiles-STARs/CP-51</u>						
Acenaphthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Anthracene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Chrysene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Fluoranthene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Fluorene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Naphthalene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Phenanthrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
Pyrene	ND	250	ug/Kg	01/08/13	DD	SW 8270
<u>QA/QC Surrogates</u>						
% 2-Fluorobiphenyl	85		%	01/08/13	DD	30 - 130 %
% Nitrobenzene-d5	75		%	01/08/13	DD	30 - 130 %
% Terphenyl-d14	118		%	01/08/13	DD	30 - 130 %

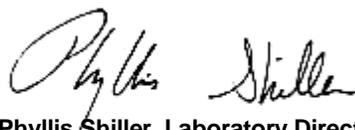
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Phyllis Shiller, Laboratory Director

January 14, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



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QA/QC Report

January 14, 2013

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 217935, QC Sample No: BD15586 (BD16135, BD16136, BD16137, BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16146)													
Mercury - Soil	BRL	5.71	NC	NC	92.4	92.7	0.3	NC	NC	NC	70 - 130	30	
QA/QC Batch 217939, QC Sample No: BD15956 (BD16150)													
<u>ICP Metals - TCLP Extraction</u>													
Lead	BRL	<0.10	<0.10	NC	104	76.1	31.0	105	98.9	6.0	75 - 125	20	r
QA/QC Batch 217906, QC Sample No: BD15973 (BD16135, BD16136, BD16137, BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16146)													
<u>ICP Metals - Soil</u>													
Aluminum	BRL	8400	6080	32.0	81.7	80.6	1.4	NC	NC	NC	75 - 125	30	r
Antimony	BRL	<3.8	<3.9	NC	96.1	99.5	3.5	97.0	95.6	1.5	75 - 125	30	
Arsenic	BRL	2.3	2.28	NC	107	99.8	7.0	99.8	101	1.2	75 - 125	30	
Barium	BRL	98.6	87.1	12.4	110	106	3.7	103	100	3.0	75 - 125	30	
Beryllium	BRL	0.55	0.39	NC	108	101	6.7	98.8	98.8	0.0	75 - 125	30	
Cadmium	BRL	<0.38	<0.39	NC	108	101	6.7	101	103	2.0	75 - 125	30	
Calcium	BRL	13000	13500	3.80	90.2	81.8	9.8	NC	NC	NC	75 - 125	30	
Chromium	BRL	16.3	13.5	18.8	114	106	7.3	101	101	0.0	75 - 125	30	
Cobalt	BRL	7.97	6.42	21.5	109	102	6.6	99.7	101	1.3	75 - 125	30	
Copper	BRL	34.5	42.7	21.2	114	107	6.3	111	105	5.6	75 - 125	30	
Iron	BRL	18600	14900	22.1	95.8	92.0	4.0	NC	NC	NC	75 - 125	30	
Lead	BRL	23.7	23.9	0.80	110	111	0.9	101	102	1.0	75 - 125	30	
Magnesium	BRL	5780	4920	16.1	92.4	90.9	1.6	NC	NC	NC	75 - 125	30	
Manganese	BRL	494	479	3.10	107	105	1.9	99.7	111	10.7	75 - 125	30	
Nickel	BRL	13.2	11.3	15.5	111	103	7.5	99.1	101	1.9	75 - 125	30	
Potassium	BRL	1830	1560	15.9	98.1	95.4	2.8	>130	>130	NC	75 - 125	30	m
Selenium	BRL	<1.5	<1.6	NC	106	99.8	6.0	94.0	96.3	2.4	75 - 125	30	
Silver	BRL	<0.38	<0.39	NC	105	102	2.9	101	101	0.0	75 - 125	30	
Sodium	BRL	207	177	15.6	95.0	89.6	5.9	122	110	10.3	75 - 125	30	
Thallium	BRL	<3.4	<3.5	NC	110	105	4.7	101	102	1.0	75 - 125	30	
Vanadium	BRL	44.5	28.7	43.2	115	109	5.4	93.5	92.6	1.0	75 - 125	30	r
Zinc	BRL	55.1	50.3	9.10	110	103	6.6	105	101	3.9	75 - 125	30	
QA/QC Batch 217938, QC Sample No: BD15973 (BD16135, BD16136, BD16137, BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16145, BD16146, BD16147, BD16148, BD16149)													
<u>ICP Metals - TCLP Extraction</u>													
Lead	BRL	<0.10	<0.10	NC	93.9	95.4	1.6	93.6	94.7	1.2	75 - 125	20	

m = This parameter is outside laboratory ms/msd specified recovery limits.
 r = This parameter is outside laboratory rpd specified recovery limits.



Environmental Laboratories, Inc.
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QA/QC Report

January 14, 2013

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 217909, QC Sample No: BD16138 (BD16135, BD16136, BD16137, BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16146)												
Total Cyanide	BRL	<0.56	<0.56	NC	97.0			93.5			85 - 115	30



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QA/QC Report

January 14, 2013

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 218210, QC Sample No: BD15547 (BD16135, BD16137 (83X) , BD16145 (56X) , BD16146, BD16147, BD16148 (50X))									
<u>Volatiles - Soil</u>									
1,1,1,2-Tetrachloroethane	ND	110	109	0.9	106	108	1.9	70 - 130	30
1,1,1-Trichloroethane	ND	99	99	0.0	100	106	5.8	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	117	112	4.4	107	105	1.9	70 - 130	30
1,1,2-Trichloroethane	ND	105	97	7.9	98	96	2.1	70 - 130	30
1,1-Dichloroethane	ND	101	99	2.0	100	105	4.9	70 - 130	30
1,1-Dichloroethene	ND	81	91	11.6	90	99	9.5	70 - 130	30
1,1-Dichloropropene	ND	98	97	1.0	96	104	8.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	119	95	22.4	90	82	9.3	70 - 130	30
1,2,3-Trichloropropane	ND	119	124	4.1	119	118	0.8	70 - 130	30
1,2,4-Trichlorobenzene	ND	113	92	20.5	83	77	7.5	70 - 130	30
1,2,4-Trimethylbenzene	ND	119	112	6.1	109	109	0.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	125	114	9.2	111	106	4.6	70 - 130	30
1,2-Dibromoethane	ND	101	93	8.2	94	93	1.1	70 - 130	30
1,2-Dichlorobenzene	ND	113	106	6.4	103	101	2.0	70 - 130	30
1,2-Dichloroethane	ND	104	97	7.0	97	100	3.0	70 - 130	30
1,2-Dichloropropane	ND	102	99	3.0	99	103	4.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	115	111	3.5	108	113	4.5	70 - 130	30
1,3-Dichlorobenzene	ND	113	107	5.5	103	98	5.0	70 - 130	30
1,3-Dichloropropane	ND	115	109	5.4	108	109	0.9	70 - 130	30
1,4-Dichlorobenzene	ND	112	104	7.4	99	95	4.1	70 - 130	30
2,2-Dichloropropane	ND	104	103	1.0	98	102	4.0	70 - 130	30
2-Chlorotoluene	ND	112	110	1.8	106	108	1.9	70 - 130	30
2-Hexanone	ND	115	103	11.0	100	123	20.6	70 - 130	30
2-Isopropyltoluene	ND	114	107	6.3	107	116	8.1	70 - 130	30
4-Chlorotoluene	ND	110	106	3.7	102	104	1.9	70 - 130	30
4-Methyl-2-pentanone	ND	111	97	13.5	97	100	3.0	70 - 130	30
Acetone	ND	72	69	4.3	69	101	37.6	70 - 130	30
Acrylonitrile	ND	112	98	13.3	99	97	2.0	70 - 130	30
Benzene	ND	99	98	1.0	97	104	7.0	70 - 130	30
Bromobenzene	ND	110	108	1.8	106	106	0.0	70 - 130	30
Bromochloromethane	ND	96	93	3.2	93	93	0.0	70 - 130	30
Bromodichloromethane	ND	102	99	3.0	97	99	2.0	70 - 130	30
Bromoform	ND	114	106	7.3	104	100	3.9	70 - 130	30
Bromomethane	ND	81	79	2.5	82	85	3.6	70 - 130	30
Carbon Disulfide	ND	73	81	10.4	81	103	23.9	70 - 130	30
Carbon tetrachloride	ND	96	100	4.1	95	105	10.0	70 - 130	30
Chlorobenzene	ND	108	105	2.8	102	105	2.9	70 - 130	30
Chloroethane	ND	82	94	13.6	96	101	5.1	70 - 130	30
Chloroform	ND	100	98	2.0	97	100	3.0	70 - 130	30
Chloromethane	ND	99	96	3.1	97	107	9.8	70 - 130	30
cis-1,2-Dichloroethene	ND	102	96	6.1	97	99	2.0	70 - 130	30

I,m,r

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
cis-1,3-Dichloropropene	ND	102	97	5.0	94	95	1.1	70 - 130	30
Dibromochloromethane	ND	114	109	4.5	107	106	0.9	70 - 130	30
Dibromomethane	ND	103	94	9.1	96	93	3.2	70 - 130	30
Dichlorodifluoromethane	ND	97	98	1.0	101	120	17.2	70 - 130	30
Ethylbenzene	ND	108	105	2.8	102	110	7.5	70 - 130	30
Hexachlorobutadiene	ND	108	83	26.2	86	95	9.9	70 - 130	30
Isopropylbenzene	ND	116	116	0.0	114	119	4.3	70 - 130	30
m&p-Xylene	ND	109	104	4.7	101	106	4.8	70 - 130	30
Methyl ethyl ketone	ND	88	76	14.6	72	103	35.4	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	93	91	2.2	91	99	8.4	70 - 130	30
Methylene chloride	ND	77	83	7.5	83	85	2.4	70 - 130	30
Naphthalene	ND	137	99	32.2	97	87	10.9	70 - 130	30
n-Butylbenzene	ND	118	105	11.7	100	105	4.9	70 - 130	30
n-Propylbenzene	ND	120	114	5.1	112	114	1.8	70 - 130	30
o-Xylene	ND	110	105	4.7	52	109	70.8	70 - 130	30
p-Isopropyltoluene	ND	117	109	7.1	106	110	3.7	70 - 130	30
sec-Butylbenzene	ND	115	109	5.4	109	117	7.1	70 - 130	30
Styrene	ND	105	102	2.9	50	106	71.8	70 - 130	30
tert-Butylbenzene	ND	117	114	2.6	113	120	6.0	70 - 130	30
Tetrachloroethene	ND	105	105	0.0	100	106	5.8	70 - 130	30
Tetrahydrofuran (THF)	ND	111	97	13.5	97	98	1.0	70 - 130	30
Toluene	ND	99	96	3.1	95	101	6.1	70 - 130	30
trans-1,2-Dichloroethene	ND	89	94	5.5	93	99	6.3	70 - 130	30
trans-1,3-Dichloropropene	ND	104	97	7.0	93	93	0.0	70 - 130	30
trans-1,4-dichloro-2-butene	ND	125	116	7.5	109	101	7.6	70 - 130	30
Trichloroethene	ND	101	101	0.0	101	104	2.9	70 - 130	30
Trichlorofluoromethane	ND	87	92	5.6	93	98	5.2	70 - 130	30
Trichlorotrifluoroethane	ND	85	90	5.7	91	99	8.4	70 - 130	30
Vinyl chloride	ND	88	88	0.0	88	100	12.8	70 - 130	30
% 1,2-dichlorobenzene-d4	101	100	101	1.0	100	100	0.0	70 - 130	30
% Bromofluorobenzene	96	101	99	2.0	99	100	1.0	70 - 130	30
% Dibromofluoromethane	96	102	95	7.1	98	96	2.1	70 - 130	30
% Toluene-d8	100	100	99	1.0	99	100	1.0	70 - 130	30

QA/QC Batch 217964, QC Sample No: BD15989 (BD16135 (56X) , BD16136, BD16137 (200X) , BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16149, BD16150)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	108	105	2.8				70 - 130	30
1,1,1-Trichloroethane	ND	100	106	5.8				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	110	103	6.6				70 - 130	30
1,1,2-Trichloroethane	ND	106	104	1.9				70 - 130	30
1,1-Dichloroethane	ND	98	104	5.9				70 - 130	30
1,1-Dichloroethene	ND	96	100	4.1				70 - 130	30
1,1-Dichloropropene	ND	102	104	1.9				70 - 130	30
1,2,3-Trichlorobenzene	ND	121	119	1.7				70 - 130	30
1,2,3-Trichloropropane	ND	112	103	8.4				70 - 130	30
1,2,4-Trichlorobenzene	ND	130	122	6.3				70 - 130	30
1,2,4-Trimethylbenzene	ND	122	115	5.9				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	114	108	5.4				70 - 130	30
1,2-Dibromoethane	ND	102	104	1.9				70 - 130	30
1,2-Dichlorobenzene	ND	119	111	7.0				70 - 130	30
1,2-Dichloroethane	ND	95	100	5.1				70 - 130	30
1,2-Dichloropropane	ND	99	102	3.0				70 - 130	30

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,3,5-Trimethylbenzene	ND	117	113	3.5				70 - 130	30
1,3-Dichlorobenzene	ND	120	114	5.1				70 - 130	30
1,3-Dichloropropane	ND	104	105	1.0				70 - 130	30
1,4-Dichlorobenzene	ND	121	115	5.1				70 - 130	30
2,2-Dichloropropane	ND	103	108	4.7				70 - 130	30
2-Chlorotoluene	ND	118	113	4.3				70 - 130	30
2-Hexanone	ND	66	64	3.1				70 - 130	30
2-Isopropyltoluene	ND	121	113	6.8				70 - 130	30
4-Chlorotoluene	ND	117	112	4.4				70 - 130	30
4-Methyl-2-pentanone	ND	92	94	2.2				70 - 130	30
Acetone	ND	<40	41	NC				70 - 130	30
Acrylonitrile	ND	92	97	5.3				70 - 130	30
Benzene	ND	98	101	3.0				70 - 130	30
Bromobenzene	ND	112	110	1.8				70 - 130	30
Bromochloromethane	ND	99	103	4.0				70 - 130	30
Bromodichloromethane	ND	103	103	0.0				70 - 130	30
Bromoform	ND	116	110	5.3				70 - 130	30
Bromomethane	ND	95	88	7.7				70 - 130	30
Carbon Disulfide	ND	82	85	3.6				70 - 130	30
Carbon tetrachloride	ND	94	97	3.1				70 - 130	30
Chlorobenzene	ND	108	108	0.0				70 - 130	30
Chloroethane	ND	102	101	1.0				70 - 130	30
Chloroform	ND	100	104	3.9				70 - 130	30
Chloromethane	ND	93	96	3.2				70 - 130	30
cis-1,2-Dichloroethene	ND	101	107	5.8				70 - 130	30
cis-1,3-Dichloropropene	ND	103	107	3.8				70 - 130	30
Dibromochloromethane	ND	112	107	4.6				70 - 130	30
Dibromomethane	ND	99	103	4.0				70 - 130	30
Dichlorodifluoromethane	ND	86	91	5.6				70 - 130	30
Ethylbenzene	ND	105	106	0.9				70 - 130	30
Hexachlorobutadiene	ND	132	124	6.3				70 - 130	30
Isopropylbenzene	ND	117	115	1.7				70 - 130	30
m&p-Xylene	ND	106	107	0.9				70 - 130	30
Methyl ethyl ketone	ND	52	53	1.9				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	92	92	0.0				70 - 130	30
Methylene chloride	ND	91	97	6.4				70 - 130	30
Naphthalene	ND	124	114	8.4				70 - 130	30
n-Butylbenzene	ND	131	124	5.5				70 - 130	30
n-Propylbenzene	ND	124	118	5.0				70 - 130	30
o-Xylene	ND	113	113	0.0				70 - 130	30
p-Isopropyltoluene	ND	126	118	6.6				70 - 130	30
sec-Butylbenzene	ND	118	113	4.3				70 - 130	30
Styrene	ND	114	111	2.7				70 - 130	30
tert-Butylbenzene	ND	120	113	6.0				70 - 130	30
Tetrachloroethene	ND	106	108	1.9				70 - 130	30
Tetrahydrofuran (THF)	ND	89	95	6.5				70 - 130	30
Toluene	ND	100	103	3.0				70 - 130	30
trans-1,2-Dichloroethene	ND	100	103	3.0				70 - 130	30
trans-1,3-Dichloropropene	ND	104	108	3.8				70 - 130	30
trans-1,4-dichloro-2-butene	ND	119	113	5.2				70 - 130	30
Trichloroethene	ND	103	107	3.8				70 - 130	30
Trichlorofluoromethane	ND	100	105	4.9				70 - 130	30
Trichlorotrifluoroethane	ND	95	97	2.1				70 - 130	30

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Vinyl chloride	ND	94	99	5.2				70 - 130	30
% 1,2-dichlorobenzene-d4	99	101	100	1.0				70 - 130	30
% Bromofluorobenzene	97	98	100	2.0				70 - 130	30
% Dibromofluoromethane	95	100	101	1.0				70 - 130	30
% Toluene-d8	97	97	101	4.0				70 - 130	30

QA/QC Batch 217894, QC Sample No: BD16016 (BD16135, BD16136, BD16137, BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16146)

Pesticides - Soil

4,4' -DDD	ND	93	77	18.8	73	73	0.0	40 - 140	30
4,4' -DDE	ND	73	80	9.2	74	75	1.3	40 - 140	30
4,4' -DDT	ND	66	69	4.4	66	68	3.0	40 - 140	30
a-BHC	ND	76	84	10.0	79	83	4.9	40 - 140	30
a-Chlordane	ND	75	81	7.7	75	78	3.9	40 - 140	30
Alachlor	ND	N/A	N/A	NC	N/A	N/A	NC	40 - 140	30
Aldrin	ND	74	81	9.0	74	79	6.5	40 - 140	30
b-BHC	ND	79	86	8.5	80	84	4.9	40 - 140	30
Chlordane	ND	N/A	N/A	NC	N/A	N/A	NC	40 - 140	30
d-BHC	ND	77	85	9.9	78	82	5.0	40 - 140	30
Dieldrin	ND	73	80	9.2	73	76	4.0	40 - 140	30
Endosulfan I	ND	71	80	11.9	73	76	4.0	40 - 140	30
Endosulfan II	ND	N/A	69	NC	70	75	6.9	40 - 140	30
Endosulfan sulfate	ND	70	73	4.2	73	74	1.4	40 - 140	30
Endrin	ND	62	65	4.7	68	72	5.7	40 - 140	30
Endrin aldehyde	ND	76	77	1.3	76	80	5.1	40 - 140	30
Endrin ketone	ND	79	83	4.9	76	77	1.3	40 - 140	30
g-BHC	ND	75	83	10.1	77	82	6.3	40 - 140	30
g-Chlordane	ND	70	77	9.5	70	73	4.2	40 - 140	30
Heptachlor	ND	70	77	9.5	71	75	5.5	40 - 140	30
Heptachlor epoxide	ND	72	80	10.5	74	77	4.0	40 - 140	30
Methoxychlor	ND	69	73	5.6	71	73	2.8	40 - 140	30
Toxaphene	ND	N/A	N/A	NC	N/A	N/A	NC	40 - 140	30
% DCBP	84	75	81	7.7	85	84	1.2	30 - 150	30
% TCMX	80	80	84	4.9	77	78	1.3	30 - 150	30

QA/QC Batch 217893, QC Sample No: BD16016 (BD16135, BD16136, BD16137, BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16146)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	77	82	6.3	79	80	1.3	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	77	80	3.8	82	84	2.4	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	78	80	79	1.3	79	83	4.9	30 - 150	30
% TCMX (Surrogate Rec)	75	78	82	5.0	72	75	4.1	30 - 150	30

QA/QC Batch 217904, QC Sample No: BD16140 (BD16135, BD16136, BD16137, BD16138, BD16139, BD16140, BD16141, BD16142, BD16143, BD16144, BD16146)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	77	69	11.0	80	78	2.5	30 - 130	30
1,2,4-Trichlorobenzene	ND	73	66	10.1	76	74	2.7	30 - 130	30

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichlorobenzene	ND	78	72	8.0	81	79	2.5	30 - 130	30	
1,2-Diphenylhydrazine	ND	88	79	10.8	90	93	3.3	30 - 130	30	
1,3-Dichlorobenzene	ND	74	67	9.9	77	76	1.3	30 - 130	30	
1,4-Dichlorobenzene	ND	76	71	6.8	79	78	1.3	30 - 130	30	
2,4,5-Trichlorophenol	ND	82	71	14.4	87	88	1.1	30 - 130	30	
2,4,6-Trichlorophenol	ND	85	81	4.8	89	89	0.0	30 - 130	30	
2,4-Dichlorophenol	ND	81	75	7.7	84	82	2.4	30 - 130	30	
2,4-Dimethylphenol	ND	56	52	7.4	59	58	1.7	30 - 130	30	
2,4-Dinitrophenol	ND	<5	30	NC	25	34	30.5	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	86	79	8.5	90	93	3.3	30 - 130	30	
2,6-Dinitrotoluene	ND	90	83	8.1	90	97	7.5	30 - 130	30	
2-Chloronaphthalene	ND	87	80	8.4	91	91	0.0	30 - 130	30	
2-Chlorophenol	ND	80	74	7.8	82	83	1.2	30 - 130	30	
2-Methylnaphthalene	ND	79	71	10.7	84	79	6.1	30 - 130	30	
2-Methylphenol (o-cresol)	ND	80	74	7.8	84	81	3.6	30 - 130	30	
2-Nitroaniline	ND	>150	144	NC	>150	>150	NC	30 - 130	30	l,m
2-Nitrophenol	ND	73	73	0.0	86	80	7.2	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	81	73	10.4	84	81	3.6	30 - 130	30	
3,3'-Dichlorobenzidine	ND	>150	>150	NC	>150	>150	NC	30 - 130	30	l,m
3-Nitroaniline	ND	>150	146	NC	>150	>150	NC	30 - 130	30	l,m
4,6-Dinitro-2-methylphenol	ND	36	71	65.4	90	98	8.5	30 - 130	30	r
4-Bromophenyl phenyl ether	ND	88	82	7.1	92	86	6.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	86	79	8.5	89	89	0.0	30 - 130	30	
4-Chloroaniline	ND	103	89	14.6	105	98	6.9	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	83	74	11.5	85	84	1.2	30 - 130	30	
4-Nitroaniline	ND	96	89	7.6	96	101	5.1	30 - 130	30	
4-Nitrophenol	ND	86	83	3.6	90	98	8.5	30 - 130	30	
Acenaphthene	ND	105	95	10.0	107	109	1.9	30 - 130	30	
Acenaphthylene	ND	85	76	11.2	86	88	2.3	30 - 130	30	
Acetophenone	ND	82	75	8.9	86	84	2.4	30 - 130	30	
Aniline	ND	109	94	14.8	103	101	2.0	30 - 130	30	
Anthracene	ND	104	98	5.9	114	110	3.6	30 - 130	30	
Benz(a)anthracene	ND	102	95	7.1	108	106	1.9	30 - 130	30	
Benzidine	ND	45	36	22.2	9.9	12	19.2	30 - 130	30	m
Benzo(a)pyrene	ND	98	92	6.3	102	102	0.0	30 - 130	30	
Benzo(b)fluoranthene	ND	111	105	5.6	113	113	0.0	30 - 130	30	
Benzo(ghi)perylene	ND	91	79	14.1	94	102	8.2	30 - 130	30	
Benzo(k)fluoranthene	ND	104	99	4.9	115	115	0.0	30 - 130	30	
Benzyl butyl phthalate	ND	88	83	5.8	99	91	8.4	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	85	78	8.6	89	88	1.1	30 - 130	30	
Bis(2-chloroethyl)ether	ND	77	72	6.7	79	79	0.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	88	79	10.8	91	90	1.1	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	89	84	5.8	101	90	11.5	30 - 130	30	
Carbazole	ND	124	111	11.1	128	127	0.8	30 - 130	30	
Chrysene	ND	101	93	8.2	106	107	0.9	30 - 130	30	
Dibenz(a,h)anthracene	ND	97	86	12.0	100	107	6.8	30 - 130	30	
Dibenzofuran	ND	84	75	11.3	85	88	3.5	30 - 130	30	
Diethyl phthalate	ND	88	78	12.0	91	93	2.2	30 - 130	30	
Dimethylphthalate	ND	88	80	9.5	88	91	3.4	30 - 130	30	
Di-n-butylphthalate	ND	93	84	10.2	102	93	9.2	30 - 130	30	
Di-n-octylphthalate	ND	85	80	6.1	95	89	6.5	30 - 130	30	
Fluoranthene	ND	89	82	8.2	94	93	1.1	30 - 130	30	
Fluorene	ND	102	93	9.2	106	108	1.9	30 - 130	30	

QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Hexachlorobenzene	ND	94	87	7.7	102	91	11.4	30 - 130	30
Hexachlorobutadiene	ND	77	69	11.0	78	76	2.6	30 - 130	30
Hexachlorocyclopentadiene	ND	84	78	7.4	92	89	3.3	30 - 130	30
Hexachloroethane	ND	80	72	10.5	82	80	2.5	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	96	84	13.3	99	105	5.9	30 - 130	30
Isophorone	ND	92	85	7.9	95	94	1.1	30 - 130	30
Naphthalene	ND	80	73	9.2	84	82	2.4	30 - 130	30
Nitrobenzene	ND	84	76	10.0	87	86	1.2	30 - 130	30
N-Nitrosodimethylamine	ND	87	81	7.1	91	93	2.2	30 - 130	30
N-Nitrosodi-n-propylamine	ND	88	81	8.3	93	91	2.2	30 - 130	30
N-Nitrosodiphenylamine	ND	88	79	10.8	92	94	2.2	30 - 130	30
Pentachloronitrobenzene	ND	88	86	2.3	96	92	4.3	30 - 130	30
Pentachlorophenol	ND	65	80	20.7	106	102	3.8	30 - 130	30
Phenanthrene	ND	108	99	8.7	116	111	4.4	30 - 130	30
Phenol	ND	90	82	9.3	95	92	3.2	30 - 130	30
Pyrene	ND	106	99	6.8	115	111	3.5	30 - 130	30
Pyridine	ND	66	63	4.7	68	67	1.5	30 - 130	30
% 2,4,6-Tribromophenol	109	103	98	5.0	112	105	6.5	30 - 130	30
% 2-Fluorobiphenyl	88	82	74	10.3	84	85	1.2	30 - 130	30
% 2-Fluorophenol	91	82	78	5.0	87	87	0.0	30 - 130	30
% Nitrobenzene-d5	88	85	76	11.2	87	87	0.0	30 - 130	30
% Phenol-d5	94	96	86	11.0	99	97	2.0	30 - 130	30
% Terphenyl-d14	94	91	84	8.0	96	94	2.1	30 - 130	30

QA/QC Batch 217905, QC Sample No: BD16145 (BD16145, BD16147, BD16148, BD16149, BD16150)

Polynuclear Aromatic HC - Soil

Acenaphthene	ND	90	90	0.0	96	85	12.2	30 - 130	30
Acenaphthylene	ND	78	78	0.0	85	74	13.8	30 - 130	30
Anthracene	ND	97	96	1.0	106	93	13.1	30 - 130	30
Benz(a)anthracene	ND	97	95	2.1	101	89	12.6	30 - 130	30
Benzo(a)pyrene	ND	96	95	1.0	97	86	12.0	30 - 130	30
Benzo(b)fluoranthene	ND	116	110	5.3	109	97	11.7	30 - 130	30
Benzo(ghi)perylene	ND	83	84	1.2	95	82	14.7	30 - 130	30
Benzo(k)fluoranthene	ND	108	111	2.7	107	94	12.9	30 - 130	30
Chrysene	ND	100	98	2.0	103	90	13.5	30 - 130	30
Dibenz(a,h)anthracene	ND	87	87	0.0	104	89	15.5	30 - 130	30
Fluoranthene	ND	90	92	2.2	107	98	8.8	30 - 130	30
Fluorene	ND	95	94	1.1	102	91	11.4	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	86	86	0.0	101	87	14.9	30 - 130	30
Naphthalene	ND	73	72	1.4	82	74	10.3	30 - 130	30
Phenanthrene	ND	99	97	2.0	108	96	11.8	30 - 130	30
Pyrene	ND	111	117	5.3	126	115	9.1	30 - 130	30
% 2-Fluorobiphenyl	80	78	79	1.3	86	74	15.0	30 - 130	30
% Nitrobenzene-d5	70	66	64	3.1	73	63	14.7	30 - 130	30
% Terphenyl-d14	91	104	111	6.5	114	100	13.1	30 - 130	30

QA/QC Batch 218213, QC Sample No: BD16904 (BD16145 (278X))

Volatiles - Soil

1,2,4-Trimethylbenzene	ND	85	92	7.9	94	79	17.3	70 - 130	30
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l = This parameter is outside laboratory lcs/lcsd specified recovery limits.
m = This parameter is outside laboratory ms/msd specified recovery limits.
r = This parameter is outside laboratory rpd specified recovery limits.

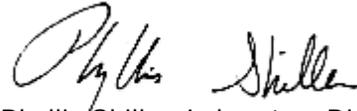
QA/QC Data

SDG I.D.: GBD16135

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference



Phyllis Shiller, Laboratory Director
January 14, 2013

Sample Criteria Exceedences Report

Requested Criteria: 375, 375RS

GBD16135 - EBC

State: NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BD16135	\$8270-SMR	Dibenzofuran	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	7600	270	7000	7000	ug/Kg
BD16135	\$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential	24000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	24000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Residential	21000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	21000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential	25000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	25000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Residential	3200	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	3200	270	800	800	ug/Kg
BD16135	\$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential	19000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	19000	270	1000	1000	ug/Kg
BD16135	\$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential	9500	270	500	500	ug/Kg
BD16135	\$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	9500	270	500	500	ug/Kg
BD16135	\$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential	2800	270	330	330	ug/Kg
BD16135	\$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2800	270	330	330	ug/Kg
BD16135	\$PEST_SMR	a-BHC	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	36	20	20	ug/Kg
BD16135	\$PEST_SMR	Aldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	11	5	5	ug/Kg
BD16135	\$PEST_SMR	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	23	3.3	3.3	ug/Kg
BD16135	\$PEST_SMR	Dieldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	11	5	5	ug/Kg
BD16135	\$PEST_SMR	Endrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	73	14	14	ug/Kg
BD16135	\$PEST_SMR	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	23	3.3	3.3	ug/Kg
BD16135	\$PEST_SMR	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	23	3.3	3.3	ug/Kg
BD16135	AS-SM	Arsenic	NY / 375-6.8 Metals / Unrestricted Use Soil	14.5	0.8	13	13	mg/Kg
BD16135	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	106	0.39	50	50	mg/kg
BD16135	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.46	0.07	0.18	0.18	mg/Kg
BD16135	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	336	3.9	63	63	mg/Kg
BD16135	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	275	3.9	109	109	mg/Kg
BD16137	\$8260MAR	Vinyl chloride	NY / 375-6.8 Volatiles / Residential	ND	590	210	210	ug/Kg
BD16137	\$8260MAR	Vinyl chloride	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	20	20	ug/Kg
BD16137	\$8260MAR	1,1-Dichloroethene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	330	330	ug/Kg
BD16137	\$8260MAR	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	12000	50	50	ug/Kg
BD16137	\$8260MAR	Methylene chloride	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	50	50	ug/Kg
BD16137	\$8260MAR	trans-1,2-Dichloroethene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	190	190	ug/Kg
BD16137	\$8260MAR	1,1-Dichloroethane	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	270	270	ug/Kg
BD16137	\$8260MAR	cis-1,2-Dichloroethene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	250	250	ug/Kg
BD16137	\$8260MAR	Methyl Ethyl Ketone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	3500	120	120	ug/Kg
BD16137	\$8260MAR	Chloroform	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	370	370	ug/Kg
BD16137	\$8260MAR	Methyl t-butyl ether (MTBE)	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	1200	930	930	ug/Kg
BD16137	\$8260MAR	Benzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	60	60	ug/Kg
BD16137	\$8260MAR	1,2-Dichloroethane	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	20	20	ug/Kg
BD16137	\$8260MAR	Trichloroethene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	590	470	470	ug/Kg

Sample Criteria Exceedences Report

Requested Criteria: 375, 375RS

GBD16135 - EBC

State: NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BD16137	\$8260MAR	Ethylbenzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	2200	590	1000	1000	ug/Kg
BD16137	\$8260MAR	1,3,5-Trimethylbenzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	11000	590	8400	8400	ug/Kg
BD16137	\$8260MAR	1,2,4-Trimethylbenzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	32000	1400	3600	3600	ug/Kg
BD16137	\$8260MAR	Total Xylenes	NY / 375-6.8 Volatiles / Unrestricted Use Soil	16000	590	260	260	ug/Kg
BD16137	\$8270-SMR	Phenol	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	ND	1300	330	330	ug/Kg
BD16137	\$8270-SMR	2-Methylphenol (o-cresol)	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	ND	1300	330	330	ug/Kg
BD16137	\$8270-SMR	Naphthalene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	14000	1300	12000	12000	ug/Kg
BD16137	\$8270-SMR	Pentachlorophenol	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	ND	1900	800	800	ug/Kg
BD16137	\$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential	31000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	31000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Residential	29000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	29000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential	32000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	32000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Residential	11000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	11000	1300	800	800	ug/Kg
BD16137	\$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential	25000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	25000	1300	1000	1000	ug/Kg
BD16137	\$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential	9600	1300	500	500	ug/Kg
BD16137	\$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	9600	1300	500	500	ug/Kg
BD16137	\$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential	2900	1300	330	330	ug/Kg
BD16137	\$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2900	1300	330	330	ug/Kg
BD16137	\$PEST_SMR	a-BHC	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	36	20	20	ug/Kg
BD16137	\$PEST_SMR	Aldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	11	5	5	ug/Kg
BD16137	\$PEST_SMR	4,4' -DDE	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	23	3.3	3.3	ug/Kg
BD16137	\$PEST_SMR	Dieldrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	11	5	5	ug/Kg
BD16137	\$PEST_SMR	Endrin	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	72	14	14	ug/Kg
BD16137	\$PEST_SMR	4,4' -DDD	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	23	3.3	3.3	ug/Kg
BD16137	\$PEST_SMR	4,4' -DDT	NY / 375-6.8 PCBs/Pesticides / Unrestricted Use Soil	ND*	23	3.3	3.3	ug/Kg
BD16137	AS-SM	Arsenic	NY / 375-6.8 Metals / Residential	22.7	0.7	16	16	mg/Kg
BD16137	AS-SM	Arsenic	NY / 375-6.8 Metals / Unrestricted Use Soil	22.7	0.7	13	13	mg/Kg
BD16137	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	64.9	0.36	50	50	mg/kg
BD16137	HG-SM	Mercury	NY / 375-6.8 Metals / Residential	1.07	0.07	0.81	0.81	mg/Kg
BD16137	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	1.07	0.07	0.18	0.18	mg/Kg
BD16137	PB-SM	Lead	NY / 375-6.8 Metals / Residential	561	3.6	400	400	mg/Kg
BD16137	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	561	3.6	63	63	mg/Kg
BD16137	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	425	3.6	109	109	mg/Kg
BD16139	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	70.9	0.37	50	50	mg/kg
BD16139	HG-SM	Mercury	NY / 375-6.8 Metals / Residential	1.57	0.09	0.81	0.81	mg/Kg
BD16139	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	1.57	0.09	0.18	0.18	mg/Kg
BD16139	PB-SM	Lead	NY / 375-6.8 Metals / Residential	518	3.7	400	400	mg/Kg

Sample Criteria Exceedences Report

Requested Criteria: 375, 375RS

GBD16135 - EBC

State: NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BD16139	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	518	3.7	63	63	mg/Kg
BD16139	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	145	3.7	109	109	mg/Kg
BD16142	\$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential	7200	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	7200	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Residential	7400	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	7400	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential	8200	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	8200	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Residential	2200	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	2200	280	800	800	ug/Kg
BD16142	\$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential	5800	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	5800	280	1000	1000	ug/Kg
BD16142	\$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential	3000	280	500	500	ug/Kg
BD16142	\$8270-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	3000	280	500	500	ug/Kg
BD16142	\$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential	1200	280	330	330	ug/Kg
BD16142	\$8270-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1200	280	330	330	ug/Kg
BD16142	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	58.4	0.41	50	50	mg/kg
BD16142	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.61	0.07	0.18	0.18	mg/Kg
BD16142	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	346	4.1	63	63	mg/Kg
BD16142	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	327	4.1	109	109	mg/Kg
BD16145	\$8021SS_MAR	Benzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	120	60	60	ug/Kg
BD16145	\$8021SS_MAR	Total Xylenes	NY / 375-6.8 Volatiles / Unrestricted Use Soil	1250	120	260	260	ug/Kg
BD16145	\$8021SS_MAR	1,2,4-Trimethylbenzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	14000	290	3600	3600	ug/Kg
BD16148	\$8021SS_MAR	Benzene	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	110	60	60	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



NY Temperature Narration

January 14, 2013

SDG I.D.: GBD16135

The samples in this delivery group were received at 4°C.
(Note acceptance criteria is above freezing up to 6°C)

Temp Pg 2 of 2

NY/NJ CHAIN OF CUSTODY RECORD



587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: info@phoenixlabs.com Fax (860) 645-0823
 Client Services (860) 645-8726

Data Delivery:
 Fax #
 Email: CSOSIK@phoenixlabs.com

Customer: EBC
 Address: 1808 Middle Country Rd
Ridge, NY 11967

Project: 291 Metropolitan Ave
 Report to: EBC
 Invoice to:

Project P.O.:
 Phone #: 631-504-6000
 Fax #:

Sampler's Signature: [Signature] Date: 1.4.13

Analysis Request

Client Sample - Information - Identification

Matrix Code:	WW=wastewater	S=soil/solid	O=oil
GW=groundwater	SL=sludge	A=air	X=other
16147		S	
16148		S	
16149		S	
16150		S	
16151		H	
16152		L	

Phoenix Sample #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
16147	B4 (16-18)	S	1.4.13	
16148	B1 (18-20)	S		
16149	B2 (15-17)	S		
16150	B3 (18-20)	S		
16151	TRIP Blank	H		
16152	TS	L		

Analysis Request	Turnaround:	NJ	NY	Data Format
1	1 Day	<input type="checkbox"/> Res. Criteria	<input type="checkbox"/> TOGS GA GW	<input type="checkbox"/> Phoenix Std Report
2	2 Days	<input type="checkbox"/> Non-Res. Criteria	<input type="checkbox"/> CP-51 Soil	<input checked="" type="checkbox"/> Excel
3	3 Days	<input type="checkbox"/> Impact to GW Soil Cleanup Criteria	<input checked="" type="checkbox"/> NY375 Unrestricted Soil	<input checked="" type="checkbox"/> PDF
4	5 Days	<input type="checkbox"/> GW Criteria	<input checked="" type="checkbox"/> NY375 Residential Soil	<input type="checkbox"/> GIS/Key
5	10 Days		<input type="checkbox"/> NY375 Restricted Non-Residential Soil	<input type="checkbox"/> EQUIS
6	Other			<input type="checkbox"/> NJ Hazsite EDD
7				<input type="checkbox"/> NY EZ EDD (ASP)
8				<input type="checkbox"/> Other

Relinquished by: [Signature] Accepted by: [Signature]
 Date: 1-7-13 11:45
 Date: 1-7-13 1545
 Comments, Special Requirements or Regulations:
 * Lab provided Trip Blanks
 FTB werent RLWLF
 Emailed Client 1-8-13 LB

State where samples were collected: NY

Data Package
 NJ Reduced Deliv. *
 NY Enhanced (ASP B) *
 Other

Soil VOC [Methanol] [Benzene] [H2O]
 GL Soil Contamer [H2O]
 40 ml VOC Yell [As Et] [HCl]
 PL As Et [250ml] [150ml] [1000ml]
 PL H2SO4 [250ml] [500ml]
 PL HNO3 250ml
 Bacteria Bottle

Lori - Phoenixlabs

From: Lori - Phoenixlabs [lori@phoenixlabs.com]

Sent: Tuesday, January 08, 2013 09:11 AM

To: 'csosik@ebcincny.com'

Subject: Samples received for 291 Metropolitan Ave.

Good Morning,

Yesterday we received samples for this project, but we did not receive the trip blank that you have listed on the Chain of Custody. Please feel free to contact me if you should have any questions.

Thankyou,
Lori Bryda
Phoenix Environmental Labs

1/8/2013



Thursday, January 17, 2013

Attn: Mr. Charles B. Sosik, P.G
Environmental Business Consulta
1808 Middle Country Rd
Ridge NY 11961-2406

Project ID: 291 METROPOLITAN AVE
Sample ID#s: BD17311 - BD17317

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 17, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G
 Environmental Business Consulta
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: GROUND WATER
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/08/13 0:00
 01/09/13 15:08

Laboratory Data

SDG ID: GBD17311
 Phoenix ID: BD17311

Project ID: 291 METROPOLITAN AVE
 Client ID: MW 1

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Aluminum	43.3	0.10	mg/L	01/11/13	LK	SW6010
Arsenic	0.039	0.004	mg/L	01/11/13	LK	SW6010
Barium	0.557	0.002	mg/L	01/10/13	LK	SW6010
Beryllium	0.004	0.001	mg/L	01/10/13	LK	SW6010
Calcium	144	0.010	mg/L	01/10/13	LK	SW6010
Cadmium	0.001	0.001	mg/L	01/10/13	LK	SW6010
Cobalt	0.057	0.002	mg/L	01/10/13	LK	SW6010
Chromium	0.249	0.001	mg/L	01/10/13	LK	SW6010
Copper	0.262	0.005	mg/L	01/10/13	LK	SW6010
Silver (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Aluminum (Dissolved)	0.38	0.01	mg/L	01/14/13	LK	SW6010
Arsenic (Dissolved)	< 0.004	0.004	mg/L	01/14/13	LK	SW6010
Barium (Dissolved)	0.090	0.002	mg/L	01/10/13	EK	SW6010
Beryllium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Calcium (Dissolved)	122	0.01	mg/L	01/10/13	EK	SW6010
Cadmium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Cobalt (Dissolved)	0.002	0.001	mg/L	01/10/13	EK	SW6010
Chromium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Copper (Dissolved)	< 0.005	0.005	mg/L	01/10/13	EK	SW6010
Iron (Dissolved)	0.475	0.011	mg/L	01/10/13	EK	SW6010
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium (Dissolved)	52.3	0.1	mg/L	01/14/13	LK	SW6010
Magnesium (Dissolved)	20.8	0.01	mg/L	01/10/13	EK	SW6010
Manganese (Dissolved)	2.37	0.011	mg/L	01/14/13	LK	SW6010
Sodium (Dissolved)	123	1.1	mg/L	01/14/13	LK	SW6010
Nickel (Dissolved)	0.003	0.001	mg/L	01/10/13	EK	SW6010
Lead (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Antimony (Dissolved)	< 0.01	0.01	mg/L	01/10/13	EK	SW6010
Selenium (Dissolved)	< 0.02	0.02	mg/L	01/10/13	EK	SW6010
Thallium (Dissolved)	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010
Zinc (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010
Iron	218	0.10	mg/L	01/11/13	LK	SW6010
Mercury	0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium	47.7	0.1	mg/L	01/11/13	LK	SW6010
Magnesium	38.0	0.01	mg/L	01/10/13	LK	SW6010
Manganese	5.61	0.010	mg/L	01/11/13	LK	SW6010
Sodium	84.2	1.0	mg/L	01/11/13	LK	SW6010
Nickel	0.108	0.001	mg/L	01/10/13	LK	SW6010
Lead	0.113	0.002	mg/L	01/10/13	LK	SW6010
Antimony	< 0.01	0.01	mg/L	01/10/13	LK	SW6010
Selenium	< 0.02	0.02	mg/L	01/10/13	LK	SW6010
Thallium	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium	0.221	0.002	mg/L	01/10/13	LK	SW6010
Zinc	0.256	0.002	mg/L	01/10/13	LK	SW6010
Filtration	Completed			01/09/13	AG	0.45um Filter
Dissolved Mercury Digestion	Completed			01/10/13	X/X	SW7470
Mercury Digestion	Completed			01/10/13	X/X	SW7470
PCB Extraction	Completed			01/09/13	T	SW3510C
Extraction for Pest (2 Liter)	Completed			01/09/13	T	SW3510
Semi-Volatile Extraction	Completed			01/09/13	I/X/E	SW3520
Dissolved Metals Preparation	Completed			01/09/13	AG	SW846-3005
Total Metals Digestion	Completed			01/09/13	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1221	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1232	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1242	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1248	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1254	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1260	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1262	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1268	ND	0.10	ug/L	01/10/13	AW	8082

QA/QC Surrogates

% DCBP	73		%	01/10/13	AW	30 - 150 %
% TCMX	67		%	01/10/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	0.050	ug/L	01/11/13	MH	SW8081
4,4' -DDE	ND	0.050	ug/L	01/11/13	MH	SW8081
4,4' -DDT	ND	0.050	ug/L	01/11/13	MH	SW8081
α-BHC	ND	0.025	ug/L	01/11/13	MH	SW8081
Alachlor	ND	0.075	ug/L	01/11/13	MH	SW8081
Aldrin	ND	0.002	ug/L	01/11/13	MH	SW8081
β-BHC	ND	0.005	ug/L	01/11/13	MH	SW8081
Chlordane	ND	0.30	ug/L	01/11/13	MH	SW8081

Client ID: MW 1

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
d-BHC	ND	0.025	ug/L	01/11/13	MH	SW8081
Dieldrin	ND	0.002	ug/L	01/11/13	MH	SW8081
Endosulfan I	ND	0.050	ug/L	01/11/13	MH	SW8081
Endosulfan II	ND	0.050	ug/L	01/11/13	MH	SW8081
Endosulfan Sulfate	ND	0.050	ug/L	01/11/13	MH	SW8081
Endrin	ND	0.050	ug/L	01/11/13	MH	SW8081
Endrin Aldehyde	ND	0.050	ug/L	01/11/13	MH	SW8081
Endrin ketone	ND	0.050	ug/L	01/11/13	MH	SW8081
g-BHC (Lindane)	ND	0.025	ug/L	01/11/13	MH	SW8081
Heptachlor	ND	0.025	ug/L	01/11/13	MH	SW8081
Heptachlor epoxide	ND	0.025	ug/L	01/11/13	MH	SW8081
Methoxychlor	ND	0.10	ug/L	01/11/13	MH	SW8081
Toxaphene	ND	1.0	ug/L	01/11/13	MH	SW8081
<u>QA/QC Surrogates</u>						
%DCBP (Surrogate Rec)	74		%	01/11/13	MH	30 - 150 %
%TCMX (Surrogate Rec)	68		%	01/11/13	MH	30 - 150 %
<u>Volatiles</u>						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	01/09/13	R/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	01/09/13	R/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
2-Hexanone	ND	5.0	ug/L	01/09/13	R/T	SW8260
2-Isopropyltoluene	1.8	1.0	ug/L	01/09/13	R/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	01/09/13	R/T	SW8260
Acetone	ND	25	ug/L	01/09/13	R/T	SW8260
Acrylonitrile	ND	5.0	ug/L	01/09/13	R/T	SW8260
Benzene	ND	0.70	ug/L	01/09/13	R/T	SW8260
Bromobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Bromochloromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	01/09/13	R/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromoform	ND	1.0	ug/L	01/09/13	R/T	SW8260
Bromomethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	01/09/13	R/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chloroform	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chloromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	01/09/13	R/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	01/09/13	R/T	SW8260
Dibromomethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Ethylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	01/09/13	R/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
m&p-Xylene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	01/09/13	R/T	SW8260
Methyl t-butyl ether (MTBE)	360	50.0	ug/L	01/09/13	R/T	SW8260
Methylene chloride	ND	1.0	ug/L	01/09/13	R/T	SW8260
Naphthalene	ND	1.0	ug/L	01/09/13	R/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
o-Xylene	ND	1.0	ug/L	01/09/13	R/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
sec-Butylbenzene	1.5	1.0	ug/L	01/09/13	R/T	SW8260
Styrene	ND	1.0	ug/L	01/09/13	R/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Tetrahydrofuran (THF)	ND	5.0	ug/L	01/09/13	R/T	SW8260
Toluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Total Xylenes	ND	1.0	ug/L	01/09/13	R/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	01/09/13	R/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	01/09/13	R/T	SW8260
Trichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Vinyl chloride	ND	1.0	ug/L	01/09/13	R/T	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	100		%	01/09/13	R/T	70 - 130 %
% Bromofluorobenzene	93		%	01/09/13	R/T	70 - 130 %
% Dibromofluoromethane	80		%	01/09/13	R/T	70 - 130 %
% Toluene-d8	102		%	01/09/13	R/T	70 - 130 %
<u>Semivolatiles</u>						
1,2,4-Trichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
1,2-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
1,2-Diphenylhydrazine	ND	5.0	ug/L	01/11/13	DD	SW8270
1,3-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270

Client ID: MW 1

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
2,4,5-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4,6-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dimethylphenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dinitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
2,4-Dinitrotoluene	ND	5.0	ug/L	01/11/13	DD	SW8270
2,6-Dinitrotoluene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Chloronaphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Chlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2-Methylnaphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Methylphenol (o-cresol)	ND	10	ug/L	01/11/13	DD	SW8270
2-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
2-Nitrophenol	ND	10	ug/L	01/11/13	DD	SW8270
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	01/11/13	DD	SW8270
3,3'-Dichlorobenzidine	ND	50	ug/L	01/11/13	DD	SW8270
3-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
4,6-Dinitro-2-methylphenol	ND	50	ug/L	01/11/13	DD	SW8270
4-Bromophenyl phenyl ether	ND	5.0	ug/L	01/11/13	DD	SW8270
4-Chloro-3-methylphenol	ND	20	ug/L	01/11/13	DD	SW8270
4-Chloroaniline	ND	20	ug/L	01/11/13	DD	SW8270
4-Chlorophenyl phenyl ether	ND	5.0	ug/L	01/11/13	DD	SW8270
4-Nitroaniline	ND	20	ug/L	01/11/13	DD	SW8270
4-Nitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
Acetophenone	ND	5.0	ug/L	01/11/13	DD	SW8270
Aniline	ND	10	ug/L	01/11/13	DD	SW8270
Anthracene	ND	5.0	ug/L	01/11/13	DD	SW8270
Benzidine	ND	50	ug/L	01/11/13	DD	SW8270
Benzoic acid	ND	50	ug/L	01/11/13	DD	SW8270
Benzyl butyl phthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethyl)ether	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	01/11/13	DD	SW8270
Carbazole	ND	5.0	ug/L	01/11/13	DD	SW8270
Dibenzofuran	ND	5.0	ug/L	01/11/13	DD	SW8270
Diethyl phthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Dimethylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Di-n-butylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Di-n-octylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Fluoranthene	ND	5.0	ug/L	01/11/13	DD	SW8270
Fluorene	ND	5.0	ug/L	01/11/13	DD	SW8270
Hexachlorobutadiene	ND	5.0	ug/L	01/11/13	DD	SW8270
Hexachlorocyclopentadiene	ND	5.0	ug/L	01/11/13	DD	SW8270
Isophorone	ND	5.0	ug/L	01/11/13	DD	SW8270
Naphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
Nitrobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodimethylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodiphenylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
Phenol	ND	10	ug/L	01/11/13	DD	SW8270

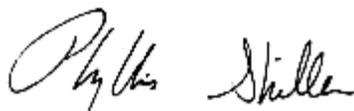
Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Pyrene	ND	5.0	ug/L	01/11/13	DD	SW8270
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	122		%	01/11/13	DD	15 - 130 %
% 2-Fluorobiphenyl	86		%	01/11/13	DD	30 - 130 %
% 2-Fluorophenol	89		%	01/11/13	DD	15 - 130 %
% Nitrobenzene-d5	109		%	01/11/13	DD	30 - 130 %
% Phenol-d5	80		%	01/11/13	DD	15 - 130 %
% Terphenyl-d14	113		%	01/11/13	DD	30 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	1.6	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthylene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benz(a)anthracene	ND	0.040	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(a)pyrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(b)fluoranthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(ghi)perylene	ND	3.0	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(k)fluoranthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Bis(2-ethylhexyl)phthalate	ND	1.6	ug/L	01/10/13	DD	SW8270 (SIM)
Chrysene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Dibenz(a,h)anthracene	ND	0.010	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachlorobenzene	ND	0.060	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachloroethane	ND	2.4	ug/L	01/10/13	DD	SW8270 (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachlorophenol	ND	0.80	ug/L	01/10/13	DD	SW8270 (SIM)
Phenanthrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Pyridine	ND	0.50	ug/L	01/10/13	DD	SW8270 (SIM)
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	122		%	01/10/13	DD	15 - 130 %
% 2-Fluorobiphenyl	86		%	01/10/13	DD	30 - 130 %
% 2-Fluorophenol	89		%	01/10/13	DD	15 - 130 %
% Nitrobenzene-d5	109		%	01/10/13	DD	30 - 130 %
% Phenol-d5	80		%	01/10/13	DD	15 - 130 %
% Terphenyl-d14	113		%	01/10/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected
 BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

January 17, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 17, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G
 Environmental Business Consulta
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: GROUND WATER
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date

01/08/13
 01/09/13

Time

0:00
 15:08

Laboratory Data

SDG ID: GBD17311
 Phoenix ID: BD17312

Project ID: 291 METROPOLITAN AVE
 Client ID: MW 2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Aluminum	0.319	0.010	mg/L	01/10/13	LK	SW6010
Arsenic	< 0.004	0.004	mg/L	01/11/13	LK	SW6010
Barium	0.169	0.002	mg/L	01/10/13	LK	SW6010
Beryllium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Calcium	93.9	0.010	mg/L	01/10/13	LK	SW6010
Cadmium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Cobalt	0.005	0.002	mg/L	01/10/13	LK	SW6010
Chromium	0.002	0.001	mg/L	01/10/13	LK	SW6010
Copper	< 0.005	0.005	mg/L	01/10/13	LK	SW6010
Silver (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Aluminum (Dissolved)	0.05	0.01	mg/L	01/14/13	LK	SW6010
Arsenic (Dissolved)	< 0.004	0.004	mg/L	01/10/13	EK	SW6010
Barium (Dissolved)	0.130	0.002	mg/L	01/10/13	EK	SW6010
Beryllium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Calcium (Dissolved)	95.9	0.01	mg/L	01/10/13	EK	SW6010
Cadmium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Cobalt (Dissolved)	0.007	0.001	mg/L	01/10/13	EK	SW6010
Chromium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Copper (Dissolved)	< 0.005	0.005	mg/L	01/10/13	EK	SW6010
Iron (Dissolved)	6.98	0.011	mg/L	01/10/13	EK	SW6010
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium (Dissolved)	24.9	0.1	mg/L	01/14/13	LK	SW6010
Magnesium (Dissolved)	19.8	0.01	mg/L	01/10/13	EK	SW6010
Manganese (Dissolved)	14.1	0.011	mg/L	01/14/13	LK	SW6010
Sodium (Dissolved)	57.5	0.11	mg/L	01/14/13	LK	SW6010
Nickel (Dissolved)	0.006	0.001	mg/L	01/10/13	EK	SW6010
Lead (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Antimony (Dissolved)	< 0.01	0.01	mg/L	01/10/13	EK	SW6010
Selenium (Dissolved)	< 0.02	0.02	mg/L	01/14/13	LK	SW6010
Thallium (Dissolved)	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010
Zinc (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010
Iron	14.3	0.010	mg/L	01/10/13	LK	SW6010
Mercury	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium	17.8	0.1	mg/L	01/11/13	LK	SW6010
Magnesium	19.5	0.01	mg/L	01/10/13	LK	SW6010
Manganese	14.7	0.010	mg/L	01/11/13	LK	SW6010
Sodium	54.2	0.1	mg/L	01/10/13	LK	SW6010
Nickel	0.006	0.001	mg/L	01/10/13	LK	SW6010
Lead	0.010	0.002	mg/L	01/14/13	LK	SW6010
Antimony	< 0.01	0.01	mg/L	01/10/13	LK	SW6010
Selenium	< 0.02	0.02	mg/L	01/10/13	LK	SW6010
Thallium	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium	< 0.002	0.002	mg/L	01/10/13	LK	SW6010
Zinc	0.002	0.002	mg/L	01/10/13	LK	SW6010
Filtration	Completed			01/09/13	AG	0.45um Filter
Dissolved Mercury Digestion	Completed			01/10/13	X/X	SW7470
Mercury Digestion	Completed			01/10/13	X/X	SW7470
PCB Extraction	Completed			01/09/13	T	SW3510C
Extraction for Pest (2 Liter)	Completed			01/09/13	T	SW3510
Semi-Volatile Extraction	Completed			01/09/13	I/X/E	SW3520
Dissolved Metals Preparation	Completed			01/09/13	AG	SW846-3005
Total Metals Digestion	Completed			01/09/13	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1221	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1232	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1242	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1248	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1254	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1260	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1262	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1268	ND	0.10	ug/L	01/10/13	AW	8082

QA/QC Surrogates

% DCBP	60		%	01/10/13	AW	30 - 150 %
% TCMX	59		%	01/10/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND*	0.050	ug/L	01/11/13	MH	SW8081
4,4' -DDE	ND*	0.050	ug/L	01/11/13	MH	SW8081
4,4' -DDT	ND*	0.050	ug/L	01/11/13	MH	SW8081
α-BHC	ND*	0.025	ug/L	01/11/13	MH	SW8081
Alachlor	ND*	0.075	ug/L	01/11/13	MH	SW8081
Aldrin	ND*	0.002	ug/L	01/11/13	MH	SW8081
β-BHC	ND*	0.005	ug/L	01/11/13	MH	SW8081
Chlordane	ND*	0.30	ug/L	01/11/13	MH	SW8081

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
d-BHC	ND*	0.025	ug/L	01/11/13	MH	SW8081
Dieldrin	ND*	0.002	ug/L	01/11/13	MH	SW8081
Endosulfan I	ND*	0.050	ug/L	01/11/13	MH	SW8081
Endosulfan II	ND*	0.050	ug/L	01/11/13	MH	SW8081
Endosulfan Sulfate	ND*	0.050	ug/L	01/11/13	MH	SW8081
Endrin	ND*	0.050	ug/L	01/11/13	MH	SW8081
Endrin Aldehyde	ND*	0.050	ug/L	01/11/13	MH	SW8081
Endrin ketone	ND*	0.050	ug/L	01/11/13	MH	SW8081
g-BHC (Lindane)	ND*	0.025	ug/L	01/11/13	MH	SW8081
Heptachlor	ND*	0.025	ug/L	01/11/13	MH	SW8081
Heptachlor epoxide	ND*	0.025	ug/L	01/11/13	MH	SW8081
Methoxychlor	ND*	0.10	ug/L	01/11/13	MH	SW8081
Toxaphene	ND*	1.0	ug/L	01/11/13	MH	SW8081

QA/QC Surrogates

%DCBP (Surrogate Rec)	Diluted Out		%	01/11/13	MH	30 - 150 %
%TCMX (Surrogate Rec)	Diluted Out		%	01/11/13	MH	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1,1-Trichloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	01/10/13	R/T	SW8260
1,1,2-Trichloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1-Dichloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1-Dichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
1,1-Dichloropropene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,3-Trichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,4-Trimethylbenzene	1800	100	ug/L	01/10/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,2-Dibromoethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,2-Dichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2-Dichloroethane	ND	6.0	ug/L	01/10/13	R/T	SW8260
1,2-Dichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,3,5-Trimethylbenzene	420	100	ug/L	01/10/13	R/T	SW8260
1,3-Dichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,3-Dichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,4-Dichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
2,2-Dichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
2-Chlorotoluene	ND	10	ug/L	01/10/13	R/T	SW8260
2-Hexanone	ND	50	ug/L	01/10/13	R/T	SW8260
2-Isopropyltoluene	ND	10	ug/L	01/10/13	R/T	SW8260
4-Chlorotoluene	ND	10	ug/L	01/10/13	R/T	SW8260
4-Methyl-2-pentanone	ND	50	ug/L	01/10/13	R/T	SW8260
Acetone	ND	250	ug/L	01/10/13	R/T	SW8260
Acrylonitrile	ND	50	ug/L	01/10/13	R/T	SW8260
Benzene	210	7.0	ug/L	01/10/13	R/T	SW8260
Bromobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Bromochloromethane	ND	10	ug/L	01/10/13	R/T	SW8260
Bromodichloromethane	ND	5.0	ug/L	01/10/13	R/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromoform	ND	10	ug/L	01/10/13	R/T	SW8260
Bromomethane	ND	10	ug/L	01/10/13	R/T	SW8260
Carbon Disulfide	ND	50	ug/L	01/10/13	R/T	SW8260
Carbon tetrachloride	ND	10	ug/L	01/10/13	R/T	SW8260
Chlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Chloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
Chloroform	ND	10	ug/L	01/10/13	R/T	SW8260
Chloromethane	ND	10	ug/L	01/10/13	R/T	SW8260
cis-1,2-Dichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
cis-1,3-Dichloropropene	ND	5.0	ug/L	01/10/13	R/T	SW8260
Dibromochloromethane	ND	5.0	ug/L	01/10/13	R/T	SW8260
Dibromomethane	ND	10	ug/L	01/10/13	R/T	SW8260
Dichlorodifluoromethane	ND	10	ug/L	01/10/13	R/T	SW8260
Ethylbenzene	1500	100	ug/L	01/10/13	R/T	SW8260
Hexachlorobutadiene	ND	4.0	ug/L	01/10/13	R/T	SW8260
Isopropylbenzene	80	10	ug/L	01/10/13	R/T	SW8260
m&p-Xylene	5900	500	ug/L	01/10/13	R/T	SW8260
Methyl ethyl ketone	ND	50	ug/L	01/10/13	R/T	SW8260
Methyl t-butyl ether (MTBE)	92	10	ug/L	01/10/13	R/T	SW8260
Methylene chloride	ND	10	ug/L	01/10/13	R/T	SW8260
Naphthalene	470	10	ug/L	01/10/13	R/T	SW8260
n-Butylbenzene	15	10	ug/L	01/10/13	R/T	SW8260
n-Propylbenzene	180	10	ug/L	01/10/13	R/T	SW8260
o-Xylene	3000	100	ug/L	01/10/13	R/T	SW8260
p-Isopropyltoluene	ND	10	ug/L	01/10/13	R/T	SW8260
sec-Butylbenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Styrene	ND	10	ug/L	01/10/13	R/T	SW8260
tert-Butylbenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Tetrachloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
Tetrahydrofuran (THF)	ND	50	ug/L	01/10/13	R/T	SW8260
Toluene	3400	500	ug/L	01/10/13	R/T	SW8260
Total Xylenes	8900	10	ug/L	01/10/13	R/T	SW8260
trans-1,2-Dichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
trans-1,3-Dichloropropene	ND	5.0	ug/L	01/10/13	R/T	SW8260
trans-1,4-dichloro-2-butene	ND	50	ug/L	01/10/13	R/T	SW8260
Trichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
Trichlorofluoromethane	ND	10	ug/L	01/10/13	R/T	SW8260
Trichlorotrifluoroethane	ND	10	ug/L	01/10/13	R/T	SW8260
Vinyl chloride	ND	10	ug/L	01/10/13	R/T	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	100		%	01/10/13	R/T	70 - 130 %
% Bromofluorobenzene	96		%	01/10/13	R/T	70 - 130 %
% Dibromofluoromethane	79		%	01/10/13	R/T	70 - 130 %
% Toluene-d8	99		%	01/10/13	R/T	70 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	10	ug/L	01/11/13	DD	SW8270
1,2,4-Trichlorobenzene	ND	10	ug/L	01/11/13	DD	SW8270
1,2-Dichlorobenzene	ND	10	ug/L	01/11/13	DD	SW8270
1,2-Diphenylhydrazine	ND	10	ug/L	01/11/13	DD	SW8270

Client ID: MW 2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,3-Dichlorobenzene	ND	10	ug/L	01/11/13	DD	SW8270
1,4-Dichlorobenzene	ND	10	ug/L	01/11/13	DD	SW8270
2,4,5-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4,6-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dimethylphenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dinitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
2,4-Dinitrotoluene	ND	10	ug/L	01/11/13	DD	SW8270
2,6-Dinitrotoluene	ND	10	ug/L	01/11/13	DD	SW8270
2-Chloronaphthalene	ND	10	ug/L	01/11/13	DD	SW8270
2-Chlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2-Methylnaphthalene	120	10	ug/L	01/11/13	DD	SW8270
2-Methylphenol (o-cresol)	ND	10	ug/L	01/11/13	DD	SW8270
2-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
2-Nitrophenol	ND	10	ug/L	01/11/13	DD	SW8270
3&4-Methylphenol (m&p-cresol)	17	10	ug/L	01/11/13	DD	SW8270
3,3'-Dichlorobenzidine	ND	20	ug/L	01/11/13	DD	SW8270
3-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
4,6-Dinitro-2-methylphenol	ND	50	ug/L	01/11/13	DD	SW8270
4-Bromophenyl phenyl ether	ND	10	ug/L	01/11/13	DD	SW8270
4-Chloro-3-methylphenol	ND	20	ug/L	01/11/13	DD	SW8270
4-Chloroaniline	ND	20	ug/L	01/11/13	DD	SW8270
4-Chlorophenyl phenyl ether	ND	10	ug/L	01/11/13	DD	SW8270
4-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
4-Nitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
Acenaphthene	ND	10	ug/L	01/11/13	DD	SW8270
Acenaphthylene	ND	10	ug/L	01/11/13	DD	SW8270
Acetophenone	ND	10	ug/L	01/11/13	DD	SW8270
Aniline	ND	50	ug/L	01/11/13	DD	SW8270
Anthracene	ND	10	ug/L	01/11/13	DD	SW8270
Benz(a)anthracene	ND	10	ug/L	01/11/13	DD	SW8270
Benzidine	ND	20	ug/L	01/11/13	DD	SW8270
Benzo(a)pyrene	ND	10	ug/L	01/11/13	DD	SW8270
Benzo(b)fluoranthene	ND	10	ug/L	01/11/13	DD	SW8270
Benzo(ghi)perylene	ND	10	ug/L	01/11/13	DD	SW8270
Benzo(k)fluoranthene	ND	10	ug/L	01/11/13	DD	SW8270
Benzoic acid	ND	50	ug/L	01/11/13	DD	SW8270
Benzyl butyl phthalate	ND	10	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethoxy)methane	ND	10	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethyl)ether	ND	10	ug/L	01/11/13	DD	SW8270
Bis(2-chloroisopropyl)ether	ND	10	ug/L	01/11/13	DD	SW8270
Bis(2-ethylhexyl)phthalate	ND	10	ug/L	01/11/13	DD	SW8270
Carbazole	ND	50	ug/L	01/11/13	DD	SW8270
Chrysene	ND	10	ug/L	01/11/13	DD	SW8270
Dibenz(a,h)anthracene	ND	10	ug/L	01/11/13	DD	SW8270
Dibenzofuran	ND	10	ug/L	01/11/13	DD	SW8270
Diethyl phthalate	ND	10	ug/L	01/11/13	DD	SW8270
Dimethylphthalate	ND	10	ug/L	01/11/13	DD	SW8270
Di-n-butylphthalate	ND	10	ug/L	01/11/13	DD	SW8270
Di-n-octylphthalate	ND	10	ug/L	01/11/13	DD	SW8270

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Fluoranthene	ND	10	ug/L	01/11/13	DD	SW8270
Fluorene	ND	10	ug/L	01/11/13	DD	SW8270
Hexachlorobenzene	ND	10	ug/L	01/11/13	DD	SW8270
Hexachlorobutadiene	ND	10	ug/L	01/11/13	DD	SW8270
Hexachlorocyclopentadiene	ND	10	ug/L	01/11/13	DD	SW8270
Hexachloroethane	ND	10	ug/L	01/11/13	DD	SW8270
Indeno(1,2,3-cd)pyrene	ND	10	ug/L	01/11/13	DD	SW8270
Isophorone	ND	10	ug/L	01/11/13	DD	SW8270
Naphthalene	340	10	ug/L	01/11/13	DD	SW8270
Nitrobenzene	ND	10	ug/L	01/11/13	DD	SW8270
N-Nitrosodimethylamine	ND	10	ug/L	01/11/13	DD	SW8270
N-Nitrosodi-n-propylamine	ND	10	ug/L	01/11/13	DD	SW8270
N-Nitrosodiphenylamine	ND	10	ug/L	01/11/13	DD	SW8270
Pentachloronitrobenzene	ND	10	ug/L	01/11/13	DD	SW8270
Pentachlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
Phenanthrene	ND	10	ug/L	01/11/13	DD	SW8270
Phenol	ND	10	ug/L	01/11/13	DD	SW8270
Pyrene	ND	10	ug/L	01/11/13	DD	SW8270
Pyridine	ND	10	ug/L	01/11/13	DD	SW8270
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	*Diluted Out		%	01/11/13	DD	30 - 130 %
% 2-Fluorobiphenyl	*Diluted Out		%	01/11/13	DD	30 - 130 %
% 2-Fluorophenol	*Diluted Out		%	01/11/13	DD	30 - 130 %
% Nitrobenzene-d5	*Diluted Out		%	01/11/13	DD	30 - 130 %
% Phenol-d5	*Diluted Out		%	01/11/13	DD	30 - 130 %
% Terphenyl-d14	*Diluted Out		%	01/11/13	DD	30 - 130 %

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

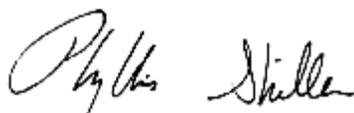
Comments:

* For Pesticides, due to matrix interference from non target compounds in the sample an elevated RL was reported.

* Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the semivolatle analysis.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 17, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 17, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G
 Environmental Business Consulta
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: GROUND WATER
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/08/13 0:00
 01/09/13 15:08

Laboratory Data

SDG ID: GBD17311
 Phoenix ID: BD17313

Project ID: 291 METROPOLITAN AVE
 Client ID: MW 3

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Aluminum	0.719	0.010	mg/L	01/10/13	LK	SW6010
Arsenic	< 0.004	0.004	mg/L	01/10/13	LK	SW6010
Barium	0.067	0.002	mg/L	01/10/13	LK	SW6010
Beryllium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Calcium	175	0.010	mg/L	01/11/13	LK	SW6010
Cadmium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Cobalt	0.008	0.002	mg/L	01/10/13	LK	SW6010
Chromium	0.002	0.001	mg/L	01/10/13	LK	SW6010
Copper	< 0.005	0.005	mg/L	01/10/13	LK	SW6010
Silver (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Aluminum (Dissolved)	< 0.01	0.01	mg/L	01/14/13	LK	SW6010
Arsenic (Dissolved)	< 0.004	0.004	mg/L	01/14/13	LK	SW6010
Barium (Dissolved)	0.056	0.002	mg/L	01/10/13	EK	SW6010
Beryllium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Calcium (Dissolved)	173	0.01	mg/L	01/10/13	EK	SW6010
Cadmium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Cobalt (Dissolved)	0.008	0.001	mg/L	01/10/13	EK	SW6010
Chromium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Copper (Dissolved)	< 0.005	0.005	mg/L	01/10/13	EK	SW6010
Iron (Dissolved)	0.029	0.011	mg/L	01/10/13	EK	SW6010
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium (Dissolved)	37.2	0.1	mg/L	01/14/13	LK	SW6010
Magnesium (Dissolved)	29.5	0.01	mg/L	01/10/13	EK	SW6010
Manganese (Dissolved)	7.92	0.011	mg/L	01/14/13	LK	SW6010
Sodium (Dissolved)	124	1.1	mg/L	01/14/13	LK	SW6010
Nickel (Dissolved)	0.009	0.001	mg/L	01/10/13	EK	SW6010
Lead (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Antimony (Dissolved)	< 0.01	0.01	mg/L	01/10/13	EK	SW6010
Selenium (Dissolved)	< 0.02	0.02	mg/L	01/14/13	LK	SW6010
Thallium (Dissolved)	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010
Zinc (Dissolved)	0.004	0.002	mg/L	01/10/13	EK	SW6010
Iron	2.64	0.010	mg/L	01/10/13	LK	SW6010
Mercury	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium	27.9	0.1	mg/L	01/11/13	LK	SW6010
Magnesium	29.9	0.01	mg/L	01/10/13	LK	SW6010
Manganese	7.43	0.010	mg/L	01/11/13	LK	SW6010
Sodium	100	1.0	mg/L	01/11/13	LK	SW6010
Nickel	0.010	0.001	mg/L	01/10/13	LK	SW6010
Lead	0.011	0.002	mg/L	01/14/13	LK	SW6010
Antimony	< 0.01	0.01	mg/L	01/10/13	LK	SW6010
Selenium	< 0.02	0.02	mg/L	01/14/13	LK	SW6010
Thallium	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium	0.003	0.002	mg/L	01/10/13	LK	SW6010
Zinc	0.011	0.002	mg/L	01/10/13	LK	SW6010
Filtration	Completed			01/09/13	AG	0.45um Filter
Dissolved Mercury Digestion	Completed			01/10/13	X/X	SW7470
Mercury Digestion	Completed			01/10/13	X/X	SW7470
PCB Extraction	Completed			01/09/13	T	SW3510C
Extraction for Pest (2 Liter)	Completed			01/09/13	T	SW3510
Semi-Volatile Extraction	Completed			01/09/13	I/X/E	SW3520
Dissolved Metals Preparation	Completed			01/09/13	AG	SW846-3005
Total Metals Digestion	Completed			01/09/13	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1221	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1232	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1242	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1248	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1254	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1260	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1262	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1268	ND	0.10	ug/L	01/10/13	AW	8082

QA/QC Surrogates

% DCBP	68		%	01/10/13	AW	30 - 150 %
% TCMX	66		%	01/10/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	0.050	ug/L	01/14/13	MH	SW8081
4,4' -DDE	ND	0.050	ug/L	01/14/13	MH	SW8081
4,4' -DDT	ND	0.050	ug/L	01/14/13	MH	SW8081
α-BHC	ND	0.025	ug/L	01/14/13	MH	SW8081
Alachlor	ND	0.075	ug/L	01/14/13	MH	SW8081
Aldrin	ND	0.002	ug/L	01/14/13	MH	SW8081
b-BHC	ND*	0.010	ug/L	01/14/13	MH	SW8081
Chlordane	ND	0.30	ug/L	01/14/13	MH	SW8081

Client ID: MW 3

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
d-BHC	ND	0.025	ug/L	01/14/13	MH	SW8081
Dieldrin	ND*	0.004	ug/L	01/14/13	MH	SW8081
Endosulfan I	ND	0.050	ug/L	01/14/13	MH	SW8081
Endosulfan II	ND	0.050	ug/L	01/14/13	MH	SW8081
Endosulfan Sulfate	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin Aldehyde	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin ketone	ND	0.050	ug/L	01/14/13	MH	SW8081
g-BHC (Lindane)	ND	0.025	ug/L	01/14/13	MH	SW8081
Heptachlor	ND	0.025	ug/L	01/14/13	MH	SW8081
Heptachlor epoxide	ND	0.025	ug/L	01/14/13	MH	SW8081
Methoxychlor	ND	0.10	ug/L	01/14/13	MH	SW8081
Toxaphene	ND	1.0	ug/L	01/14/13	MH	SW8081
<u>QA/QC Surrogates</u>						
%DCBP (Surrogate Rec)	72		%	01/14/13	MH	30 - 150 %
%TCMX (Surrogate Rec)	66		%	01/14/13	MH	30 - 150 %
<u>Volatiles</u>						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	01/09/13	R/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2,4-Trimethylbenzene	9.3	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	01/09/13	R/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,3,5-Trimethylbenzene	1.3	1.0	ug/L	01/09/13	R/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	01/09/13	R/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
2-Hexanone	ND	5.0	ug/L	01/09/13	R/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	01/09/13	R/T	SW8260
Acetone	ND	25	ug/L	01/09/13	R/T	SW8260
Acrylonitrile	ND	5.0	ug/L	01/09/13	R/T	SW8260
Benzene	0.87	0.70	ug/L	01/09/13	R/T	SW8260
Bromobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Bromochloromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	01/09/13	R/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromoform	ND	1.0	ug/L	01/09/13	R/T	SW8260
Bromomethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	01/09/13	R/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chlorobenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chloroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chloroform	ND	1.0	ug/L	01/09/13	R/T	SW8260
Chloromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	01/09/13	R/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	01/09/13	R/T	SW8260
Dibromomethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Ethylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	01/09/13	R/T	SW8260
Isopropylbenzene	1.0	1.0	ug/L	01/09/13	R/T	SW8260
m&p-Xylene	1.7	1.0	ug/L	01/09/13	R/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	01/09/13	R/T	SW8260
Methyl t-butyl ether (MTBE)	230	10.0	ug/L	01/09/13	R/T	SW8260
Methylene chloride	ND	1.0	ug/L	01/09/13	R/T	SW8260
Naphthalene	4.1	1.0	ug/L	01/09/13	R/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
n-Propylbenzene	1.1	1.0	ug/L	01/09/13	R/T	SW8260
o-Xylene	2.6	1.0	ug/L	01/09/13	R/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
sec-Butylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Styrene	ND	1.0	ug/L	01/09/13	R/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Tetrahydrofuran (THF)	ND	5.0	ug/L	01/09/13	R/T	SW8260
Toluene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Total Xylenes	4.3	1.0	ug/L	01/09/13	R/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	01/09/13	R/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	01/09/13	R/T	SW8260
Trichloroethene	ND	1.0	ug/L	01/09/13	R/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	01/09/13	R/T	SW8260
Vinyl chloride	ND	1.0	ug/L	01/09/13	R/T	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	103		%	01/09/13	R/T	70 - 130 %
% Bromofluorobenzene	94		%	01/09/13	R/T	70 - 130 %
% Dibromofluoromethane	79		%	01/09/13	R/T	70 - 130 %
% Toluene-d8	99		%	01/09/13	R/T	70 - 130 %
<u>Semivolatiles</u>						
1,2,4-Trichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
1,2-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
1,2-Diphenylhydrazine	ND	5.0	ug/L	01/11/13	DD	SW8270
1,3-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270

Client ID: MW 3

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
2,4,5-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4,6-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dimethylphenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dinitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
2,4-Dinitrotoluene	ND	5.0	ug/L	01/11/13	DD	SW8270
2,6-Dinitrotoluene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Chloronaphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Chlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2-Methylnaphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Methylphenol (o-cresol)	ND	10	ug/L	01/11/13	DD	SW8270
2-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
2-Nitrophenol	ND	10	ug/L	01/11/13	DD	SW8270
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	01/11/13	DD	SW8270
3,3'-Dichlorobenzidine	ND	50	ug/L	01/11/13	DD	SW8270
3-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
4,6-Dinitro-2-methylphenol	ND	50	ug/L	01/11/13	DD	SW8270
4-Bromophenyl phenyl ether	ND	5.0	ug/L	01/11/13	DD	SW8270
4-Chloro-3-methylphenol	ND	20	ug/L	01/11/13	DD	SW8270
4-Chloroaniline	ND	20	ug/L	01/11/13	DD	SW8270
4-Chlorophenyl phenyl ether	ND	5.0	ug/L	01/11/13	DD	SW8270
4-Nitroaniline	ND	20	ug/L	01/11/13	DD	SW8270
4-Nitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
Acetophenone	ND	5.0	ug/L	01/11/13	DD	SW8270
Aniline	ND	10	ug/L	01/11/13	DD	SW8270
Anthracene	ND	5.0	ug/L	01/11/13	DD	SW8270
Benzidine	ND	50	ug/L	01/11/13	DD	SW8270
Benzoic acid	ND	50	ug/L	01/11/13	DD	SW8270
Benzyl butyl phthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethyl)ether	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	01/11/13	DD	SW8270
Carbazole	ND	5.0	ug/L	01/11/13	DD	SW8270
Dibenzofuran	ND	5.0	ug/L	01/11/13	DD	SW8270
Diethyl phthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Dimethylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Di-n-butylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Di-n-octylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Fluoranthene	ND	5.0	ug/L	01/11/13	DD	SW8270
Fluorene	ND	5.0	ug/L	01/11/13	DD	SW8270
Hexachlorobutadiene	ND	5.0	ug/L	01/11/13	DD	SW8270
Hexachlorocyclopentadiene	ND	5.0	ug/L	01/11/13	DD	SW8270
Isophorone	ND	5.0	ug/L	01/11/13	DD	SW8270
Naphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
Nitrobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodimethylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodiphenylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
Phenol	ND	10	ug/L	01/11/13	DD	SW8270

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Pyrene	ND	5.0	ug/L	01/11/13	DD	SW8270
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	109		%	01/11/13	DD	15 - 130 %
% 2-Fluorobiphenyl	79		%	01/11/13	DD	30 - 130 %
% 2-Fluorophenol	86		%	01/11/13	DD	15 - 130 %
% Nitrobenzene-d5	109		%	01/11/13	DD	30 - 130 %
% Phenol-d5	86		%	01/11/13	DD	15 - 130 %
% Terphenyl-d14	113		%	01/11/13	DD	30 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	1.6	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthylene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benz(a)anthracene	0.05	0.040	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(a)pyrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(b)fluoranthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(ghi)perylene	ND	3.0	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(k)fluoranthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Bis(2-ethylhexyl)phthalate	ND	1.6	ug/L	01/10/13	DD	SW8270 (SIM)
Chrysene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Dibenz(a,h)anthracene	ND	0.010	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachlorobenzene	ND	0.060	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachloroethane	ND	2.4	ug/L	01/10/13	DD	SW8270 (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachlorophenol	ND	0.80	ug/L	01/10/13	DD	SW8270 (SIM)
Phenanthrene	0.05	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Pyridine	ND	0.50	ug/L	01/10/13	DD	SW8270 (SIM)
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	109		%	01/10/13	DD	15 - 130 %
% 2-Fluorobiphenyl	79		%	01/10/13	DD	30 - 130 %
% 2-Fluorophenol	86		%	01/10/13	DD	15 - 130 %
% Nitrobenzene-d5	109		%	01/10/13	DD	30 - 130 %
% Phenol-d5	86		%	01/10/13	DD	15 - 130 %
% Terphenyl-d14	113		%	01/10/13	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

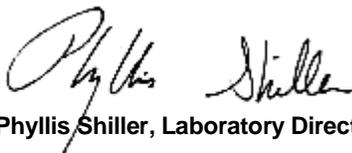
BRL=Below Reporting Level

Comments:

* For Pesticides, due to matrix interference from non target compounds in the sample an elevated RL was reported.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 17, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 January 17, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G
 Environmental Business Consulta
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: GROUND WATER
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/08/13 0:00
 01/09/13 15:08

Laboratory Data

SDG ID: GBD17311
 Phoenix ID: BD17314

Project ID: 291 METROPOLITAN AVE
 Client ID: MW 7

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Aluminum	0.452	0.010	mg/L	01/10/13	LK	SW6010
Arsenic	< 0.004	0.004	mg/L	01/10/13	LK	SW6010
Barium	0.055	0.002	mg/L	01/10/13	LK	SW6010
Beryllium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Calcium	315	0.10	mg/L	01/11/13	LK	SW6010
Cadmium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Cobalt	0.004	0.002	mg/L	01/10/13	LK	SW6010
Chromium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Copper	0.008	0.005	mg/L	01/10/13	LK	SW6010
Silver (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Aluminum (Dissolved)	0.04	0.01	mg/L	01/14/13	LK	SW6010
Arsenic (Dissolved)	< 0.004	0.004	mg/L	01/14/13	LK	SW6010
Barium (Dissolved)	0.049	0.002	mg/L	01/10/13	EK	SW6010
Beryllium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Calcium (Dissolved)	301	0.11	mg/L	01/14/13	LK	SW6010
Cadmium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Cobalt (Dissolved)	0.006	0.001	mg/L	01/10/13	EK	SW6010
Chromium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Copper (Dissolved)	0.009	0.005	mg/L	01/10/13	EK	SW6010
Iron (Dissolved)	0.098	0.011	mg/L	01/10/13	EK	SW6010
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium (Dissolved)	26.2	0.1	mg/L	01/14/13	LK	SW6010
Magnesium (Dissolved)	49.2	0.01	mg/L	01/10/13	EK	SW6010
Manganese (Dissolved)	2.05	0.001	mg/L	01/10/13	EK	SW6010
Sodium (Dissolved)	114	1.1	mg/L	01/14/13	LK	SW6010
Nickel (Dissolved)	0.014	0.001	mg/L	01/10/13	EK	SW6010
Lead (Dissolved)	0.011	0.002	mg/L	01/10/13	EK	SW6010

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Antimony (Dissolved)	< 0.01	0.01	mg/L	01/10/13	EK	SW6010
Selenium (Dissolved)	< 0.02	0.02	mg/L	01/10/13	EK	SW6010
Thallium (Dissolved)	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium (Dissolved)	< 0.002	0.002	mg/L	01/10/13	EK	SW6010
Zinc (Dissolved)	0.069	0.002	mg/L	01/10/13	EK	SW6010
Iron	0.451	0.010	mg/L	01/10/13	LK	SW6010
Mercury	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium	19.8	0.1	mg/L	01/11/13	LK	SW6010
Magnesium	52.3	0.01	mg/L	01/10/13	LK	SW6010
Manganese	2.33	0.010	mg/L	01/11/13	LK	SW6010
Sodium	103	1.0	mg/L	01/11/13	LK	SW6010
Nickel	0.013	0.001	mg/L	01/10/13	LK	SW6010
Lead	0.031	0.002	mg/L	01/14/13	LK	SW6010
Antimony	< 0.01	0.01	mg/L	01/10/13	LK	SW6010
Selenium	< 0.02	0.02	mg/L	01/10/13	LK	SW6010
Thallium	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium	< 0.002	0.002	mg/L	01/10/13	LK	SW6010
Zinc	0.080	0.002	mg/L	01/10/13	LK	SW6010
Filtration	Completed			01/09/13	AG	0.45um Filter
Dissolved Mercury Digestion	Completed			01/10/13	X/X	SW7470
Mercury Digestion	Completed			01/10/13	X/X	SW7470
PCB Extraction	Completed			01/09/13	T	SW3510C
Extraction for Pest (2 Liter)	Completed			01/09/13	T	SW3510
Semi-Volatile Extraction	Completed			01/09/13	I/X/E	SW3520
Dissolved Metals Preparation	Completed			01/09/13	AG	SW846-3005
Total Metals Digestion	Completed			01/09/13	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1221	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1232	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1242	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1248	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1254	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1260	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1262	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1268	ND	0.10	ug/L	01/10/13	AW	8082

QA/QC Surrogates

% DCBP	89		%	01/10/13	AW	30 - 150 %
% TCMX	80		%	01/10/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	0.050	ug/L	01/14/13	MH	SW8081
4,4' -DDE	ND	0.050	ug/L	01/14/13	MH	SW8081
4,4' -DDT	ND	0.050	ug/L	01/14/13	MH	SW8081
α-BHC	ND	0.025	ug/L	01/14/13	MH	SW8081
Alachlor	ND	0.075	ug/L	01/14/13	MH	SW8081
Aldrin	ND	0.002	ug/L	01/14/13	MH	SW8081
β-BHC	ND	0.005	ug/L	01/14/13	MH	SW8081
Chlordane	ND	0.30	ug/L	01/14/13	MH	SW8081

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
d-BHC	ND	0.025	ug/L	01/14/13	MH	SW8081
Dieldrin	ND*	0.004	ug/L	01/14/13	MH	SW8081
Endosulfan I	ND	0.050	ug/L	01/14/13	MH	SW8081
Endosulfan II	ND	0.050	ug/L	01/14/13	MH	SW8081
Endosulfan Sulfate	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin Aldehyde	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin ketone	ND	0.050	ug/L	01/14/13	MH	SW8081
g-BHC (Lindane)	ND	0.025	ug/L	01/14/13	MH	SW8081
Heptachlor	ND	0.025	ug/L	01/14/13	MH	SW8081
Heptachlor epoxide	ND	0.025	ug/L	01/14/13	MH	SW8081
Methoxychlor	ND	0.10	ug/L	01/14/13	MH	SW8081
Toxaphene	ND	1.0	ug/L	01/14/13	MH	SW8081
<u>QA/QC Surrogates</u>						
%DCBP (Surrogate Rec)	76		%	01/14/13	MH	30 - 150 %
%TCMX (Surrogate Rec)	63		%	01/14/13	MH	30 - 150 %
<u>Volatiles</u>						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	01/10/13	H/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	01/10/13	H/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
2-Hexanone	ND	5.0	ug/L	01/10/13	H/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	01/10/13	H/T	SW8260
Acetone	38	10	ug/L	01/10/13	H/T	SW8260
Acrylonitrile	ND	5.0	ug/L	01/10/13	H/T	SW8260
Benzene	ND	0.70	ug/L	01/10/13	H/T	SW8260
Bromobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Bromochloromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	01/10/13	H/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromoform	ND	1.0	ug/L	01/10/13	H/T	SW8260
Bromomethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	01/10/13	H/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chloroform	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chloromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	01/10/13	H/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	01/10/13	H/T	SW8260
Dibromomethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Ethylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	01/10/13	H/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
m&p-Xylene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	01/10/13	H/T	SW8260
Methyl t-butyl ether (MTBE)	17	1.0	ug/L	01/10/13	H/T	SW8260
Methylene chloride	ND	1.0	ug/L	01/10/13	H/T	SW8260
Naphthalene	ND	1.0	ug/L	01/10/13	H/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
o-Xylene	ND	1.0	ug/L	01/10/13	H/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
sec-Butylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Styrene	ND	1.0	ug/L	01/10/13	H/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Tetrahydrofuran (THF)	ND	5.0	ug/L	01/10/13	H/T	SW8260
Toluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Total Xylenes	ND	1.0	ug/L	01/10/13	H/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	01/10/13	H/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	01/10/13	H/T	SW8260
Trichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Vinyl chloride	ND	1.0	ug/L	01/10/13	H/T	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	100		%	01/10/13	H/T	70 - 130 %
% Bromofluorobenzene	104		%	01/10/13	H/T	70 - 130 %
% Dibromofluoromethane	91		%	01/10/13	H/T	70 - 130 %
% Toluene-d8	103		%	01/10/13	H/T	70 - 130 %
<u>Semivolatiles</u>						
1,2,4-Trichlorobenzene	ND	5.3	ug/L	01/11/13	DD	SW8270
1,2-Dichlorobenzene	ND	5.3	ug/L	01/11/13	DD	SW8270
1,2-Diphenylhydrazine	ND	5.3	ug/L	01/11/13	DD	SW8270
1,3-Dichlorobenzene	ND	5.3	ug/L	01/11/13	DD	SW8270

Client ID: MW 7

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	5.3	ug/L	01/11/13	DD	SW8270
2,4,5-Trichlorophenol	ND	11	ug/L	01/11/13	DD	SW8270
2,4,6-Trichlorophenol	ND	11	ug/L	01/11/13	DD	SW8270
2,4-Dichlorophenol	ND	11	ug/L	01/11/13	DD	SW8270
2,4-Dimethylphenol	ND	11	ug/L	01/11/13	DD	SW8270
2,4-Dinitrophenol	ND	53	ug/L	01/11/13	DD	SW8270
2,4-Dinitrotoluene	ND	5.3	ug/L	01/11/13	DD	SW8270
2,6-Dinitrotoluene	ND	5.3	ug/L	01/11/13	DD	SW8270
2-Chloronaphthalene	ND	5.3	ug/L	01/11/13	DD	SW8270
2-Chlorophenol	ND	11	ug/L	01/11/13	DD	SW8270
2-Methylnaphthalene	ND	5.3	ug/L	01/11/13	DD	SW8270
2-Methylphenol (o-cresol)	ND	11	ug/L	01/11/13	DD	SW8270
2-Nitroaniline	ND	53	ug/L	01/11/13	DD	SW8270
2-Nitrophenol	ND	11	ug/L	01/11/13	DD	SW8270
3&4-Methylphenol (m&p-cresol)	ND	11	ug/L	01/11/13	DD	SW8270
3,3'-Dichlorobenzidine	ND	53	ug/L	01/11/13	DD	SW8270
3-Nitroaniline	ND	53	ug/L	01/11/13	DD	SW8270
4,6-Dinitro-2-methylphenol	ND	53	ug/L	01/11/13	DD	SW8270
4-Bromophenyl phenyl ether	ND	5.3	ug/L	01/11/13	DD	SW8270
4-Chloro-3-methylphenol	ND	21	ug/L	01/11/13	DD	SW8270
4-Chloroaniline	ND	21	ug/L	01/11/13	DD	SW8270
4-Chlorophenyl phenyl ether	ND	5.3	ug/L	01/11/13	DD	SW8270
4-Nitroaniline	ND	21	ug/L	01/11/13	DD	SW8270
4-Nitrophenol	ND	53	ug/L	01/11/13	DD	SW8270
Acetophenone	ND	5.3	ug/L	01/11/13	DD	SW8270
Aniline	ND	11	ug/L	01/11/13	DD	SW8270
Anthracene	ND	5.3	ug/L	01/11/13	DD	SW8270
Benzidine	ND	53	ug/L	01/11/13	DD	SW8270
Benzoic acid	ND	53	ug/L	01/11/13	DD	SW8270
Benzyl butyl phthalate	ND	5.3	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethoxy)methane	ND	5.3	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethyl)ether	ND	5.3	ug/L	01/11/13	DD	SW8270
Bis(2-chloroisopropyl)ether	ND	5.3	ug/L	01/11/13	DD	SW8270
Carbazole	ND	5.3	ug/L	01/11/13	DD	SW8270
Dibenzofuran	ND	5.3	ug/L	01/11/13	DD	SW8270
Diethyl phthalate	ND	5.3	ug/L	01/11/13	DD	SW8270
Dimethylphthalate	ND	5.3	ug/L	01/11/13	DD	SW8270
Di-n-butylphthalate	ND	5.3	ug/L	01/11/13	DD	SW8270
Di-n-octylphthalate	ND	5.3	ug/L	01/11/13	DD	SW8270
Fluoranthene	22	5.3	ug/L	01/11/13	DD	SW8270
Fluorene	ND	5.3	ug/L	01/11/13	DD	SW8270
Hexachlorobutadiene	ND	5.3	ug/L	01/11/13	DD	SW8270
Hexachlorocyclopentadiene	ND	5.3	ug/L	01/11/13	DD	SW8270
Isophorone	ND	5.3	ug/L	01/11/13	DD	SW8270
Naphthalene	ND	5.3	ug/L	01/11/13	DD	SW8270
Nitrobenzene	ND	5.3	ug/L	01/11/13	DD	SW8270
N-Nitrosodimethylamine	ND	5.3	ug/L	01/11/13	DD	SW8270
N-Nitrosodi-n-propylamine	ND	5.3	ug/L	01/11/13	DD	SW8270
N-Nitrosodiphenylamine	ND	5.3	ug/L	01/11/13	DD	SW8270
Phenol	ND	11	ug/L	01/11/13	DD	SW8270

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Pyrene	23	5.3	ug/L	01/11/13	DD	SW8270
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	103		%	01/11/13	DD	15 - 130 %
% 2-Fluorobiphenyl	76		%	01/11/13	DD	30 - 130 %
% 2-Fluorophenol	79		%	01/11/13	DD	15 - 130 %
% Nitrobenzene-d5	108		%	01/11/13	DD	30 - 130 %
% Phenol-d5	39		%	01/11/13	DD	15 - 130 %
% Terphenyl-d14	45		%	01/11/13	DD	30 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	1.7	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthene	7.3	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthylene	0.38	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Benz(a)anthracene	8.2	0.042	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(a)pyrene	7.3	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(b)fluoranthene	8.1	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(ghi)perylene	3.5	3.2	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(k)fluoranthene	2.7	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Bis(2-ethylhexyl)phthalate	ND	1.7	ug/L	01/10/13	DD	SW8270 (SIM)
Chrysene	7.6	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Dibenz(a,h)anthracene	0.77	0.011	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachlorobenzene	ND	0.063	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachloroethane	ND	2.5	ug/L	01/10/13	DD	SW8270 (SIM)
Indeno(1,2,3-cd)pyrene	3.8	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachloronitrobenzene	ND	0.11	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachlorophenol	ND	0.84	ug/L	01/10/13	DD	SW8270 (SIM)
Phenanthrene	21	0.053	ug/L	01/10/13	DD	SW8270 (SIM)
Pyridine	ND	0.53	ug/L	01/10/13	DD	SW8270 (SIM)
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	103		%	01/10/13	DD	15 - 130 %
% 2-Fluorobiphenyl	76		%	01/10/13	DD	30 - 130 %
% 2-Fluorophenol	79		%	01/10/13	DD	15 - 130 %
% Nitrobenzene-d5	108		%	01/10/13	DD	30 - 130 %
% Phenol-d5	39		%	01/10/13	DD	15 - 130 %
% Terphenyl-d14	45		%	01/10/13	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

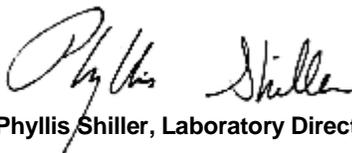
BRL=Below Reporting Level

Comments:

* For Pesticides, due to matrix interference from non target compounds in the sample an elevated RL was reported.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 17, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 17, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G
 Environmental Business Consulta
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: GROUND WATER
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date: 01/08/13
 01/09/13
 Time: 0:00
 15:08

Laboratory Data

SDG ID: GBD17311
 Phoenix ID: BD17315

Project ID: 291 METROPOLITAN AVE
 Client ID: DUPLICATE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Aluminum	31.8	0.010	mg/L	01/11/13	LK	SW6010
Arsenic	0.024	0.004	mg/L	01/11/13	LK	SW6010
Barium	0.384	0.002	mg/L	01/10/13	LK	SW6010
Beryllium	0.003	0.001	mg/L	01/10/13	LK	SW6010
Calcium	148	0.010	mg/L	01/10/13	LK	SW6010
Cadmium	< 0.001	0.001	mg/L	01/10/13	LK	SW6010
Cobalt	0.037	0.002	mg/L	01/10/13	LK	SW6010
Chromium	0.183	0.001	mg/L	01/10/13	LK	SW6010
Copper	0.154	0.005	mg/L	01/10/13	LK	SW6010
Silver (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Aluminum (Dissolved)	2.23	0.01	mg/L	01/14/13	LK	SW6010
Arsenic (Dissolved)	< 0.004	0.004	mg/L	01/14/13	LK	SW6010
Barium (Dissolved)	0.128	0.002	mg/L	01/10/13	EK	SW6010
Beryllium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Calcium (Dissolved)	141	0.01	mg/L	01/10/13	EK	SW6010
Cadmium (Dissolved)	< 0.001	0.001	mg/L	01/10/13	EK	SW6010
Cobalt (Dissolved)	0.003	0.001	mg/L	01/10/13	EK	SW6010
Chromium (Dissolved)	0.006	0.001	mg/L	01/10/13	EK	SW6010
Copper (Dissolved)	0.007	0.005	mg/L	01/10/13	EK	SW6010
Iron (Dissolved)	3.10	0.011	mg/L	01/10/13	EK	SW6010
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	01/10/13	RS	SW7470
Potassium (Dissolved)	49.2	0.1	mg/L	01/14/13	LK	SW6010
Magnesium (Dissolved)	25.7	0.01	mg/L	01/10/13	EK	SW6010
Manganese (Dissolved)	3.34	0.011	mg/L	01/14/13	LK	SW6010
Sodium (Dissolved)	108	1.1	mg/L	01/14/13	LK	SW6010
Nickel (Dissolved)	0.005	0.001	mg/L	01/10/13	EK	SW6010
Lead (Dissolved)	0.003	0.002	mg/L	01/10/13	EK	SW6010

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Antimony (Dissolved)	< 0.01	0.01	mg/L	01/10/13	EK	SW6010
Selenium (Dissolved)	< 0.02	0.02	mg/L	01/10/13	EK	SW6010
Thallium (Dissolved)	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium (Dissolved)	0.004	0.002	mg/L	01/10/13	EK	SW6010
Zinc (Dissolved)	0.005	0.002	mg/L	01/10/13	EK	SW6010
Iron	165	0.10	mg/L	01/11/13	LK	SW6010
Mercury	0.0003	0.0002	mg/L	01/10/13	RS	SW7470
Potassium	41.9	1.0	mg/L	01/11/13	LK	SW6010
Magnesium	36.8	0.01	mg/L	01/10/13	LK	SW6010
Manganese	5.58	0.010	mg/L	01/11/13	LK	SW6010
Sodium	99.9	1.0	mg/L	01/11/13	LK	SW6010
Nickel	0.077	0.001	mg/L	01/10/13	LK	SW6010
Lead	0.075	0.002	mg/L	01/10/13	LK	SW6010
Antimony	< 0.01	0.01	mg/L	01/10/13	LK	SW6010
Selenium	< 0.02	0.02	mg/L	01/10/13	LK	SW6010
Thallium	< 0.002	0.002	mg/L	01/14/13	RS	SW7010
Vanadium	0.158	0.002	mg/L	01/10/13	LK	SW6010
Zinc	0.174	0.002	mg/L	01/10/13	LK	SW6010
Filtration	Completed			01/09/13	AG	0.45um Filter
Dissolved Mercury Digestion	Completed			01/10/13	X/X	SW7470
Mercury Digestion	Completed			01/10/13	X/X	SW7470
PCB Extraction	Completed			01/09/13	T	SW3510C
Extraction for Pest (2 Liter)	Completed			01/09/13	T	SW3510
Semi-Volatile Extraction	Completed			01/09/13	I/X/E	SW3520
Dissolved Metals Preparation	Completed			01/09/13	AG	SW846-3005
Total Metals Digestion	Completed			01/09/13	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1221	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1232	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1242	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1248	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1254	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1260	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1262	ND	0.10	ug/L	01/10/13	AW	8082
PCB-1268	ND	0.10	ug/L	01/10/13	AW	8082

QA/QC Surrogates

% DCBP	70		%	01/10/13	AW	30 - 150 %
% TCMX	70		%	01/10/13	AW	30 - 150 %

Pesticides

4,4' -DDD	ND	0.050	ug/L	01/14/13	MH	SW8081
4,4' -DDE	ND	0.050	ug/L	01/14/13	MH	SW8081
4,4' -DDT	ND	0.050	ug/L	01/14/13	MH	SW8081
α-BHC	ND	0.025	ug/L	01/14/13	MH	SW8081
Alachlor	ND	0.075	ug/L	01/14/13	MH	SW8081
Aldrin	ND	0.002	ug/L	01/14/13	MH	SW8081
β-BHC	ND	0.005	ug/L	01/14/13	MH	SW8081
Chlordane	ND	0.30	ug/L	01/14/13	MH	SW8081

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
d-BHC	ND	0.025	ug/L	01/14/13	MH	SW8081
Dieldrin	ND*	0.009	ug/L	01/14/13	MH	SW8081
Endosulfan I	ND	0.050	ug/L	01/14/13	MH	SW8081
Endosulfan II	ND	0.050	ug/L	01/14/13	MH	SW8081
Endosulfan Sulfate	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin Aldehyde	ND	0.050	ug/L	01/14/13	MH	SW8081
Endrin ketone	ND	0.050	ug/L	01/14/13	MH	SW8081
g-BHC (Lindane)	ND	0.025	ug/L	01/14/13	MH	SW8081
Heptachlor	ND	0.025	ug/L	01/14/13	MH	SW8081
Heptachlor epoxide	ND	0.025	ug/L	01/14/13	MH	SW8081
Methoxychlor	ND	0.10	ug/L	01/14/13	MH	SW8081
Toxaphene	ND	1.0	ug/L	01/14/13	MH	SW8081
<u>QA/QC Surrogates</u>						
%DCBP (Surrogate Rec)	68		%	01/14/13	MH	30 - 150 %
%TCMX (Surrogate Rec)	67		%	01/14/13	MH	30 - 150 %
<u>Volatiles</u>						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	01/10/13	R/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	01/10/13	R/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	01/10/13	R/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	01/10/13	R/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	01/10/13	R/T	SW8260
2-Hexanone	ND	5.0	ug/L	01/10/13	R/T	SW8260
2-Isopropyltoluene	1.8	1.0	ug/L	01/10/13	R/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	01/10/13	R/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	01/10/13	R/T	SW8260
Acetone	ND	25	ug/L	01/10/13	R/T	SW8260
Acrylonitrile	ND	5.0	ug/L	01/10/13	R/T	SW8260
Benzene	ND	0.70	ug/L	01/10/13	R/T	SW8260
Bromobenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Bromochloromethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	01/10/13	R/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromoform	ND	1.0	ug/L	01/10/13	R/T	SW8260
Bromomethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	01/10/13	R/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	01/10/13	R/T	SW8260
Chlorobenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Chloroethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
Chloroform	ND	1.0	ug/L	01/10/13	R/T	SW8260
Chloromethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	01/10/13	R/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	01/10/13	R/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	01/10/13	R/T	SW8260
Dibromomethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
Ethylbenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	01/10/13	R/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
m&p-Xylene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	01/10/13	R/T	SW8260
Methyl t-butyl ether (MTBE)	370	50.0	ug/L	01/10/13	R/T	SW8260
Methylene chloride	ND	1.0	ug/L	01/10/13	R/T	SW8260
Naphthalene	ND	1.0	ug/L	01/10/13	R/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
o-Xylene	ND	1.0	ug/L	01/10/13	R/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	01/10/13	R/T	SW8260
sec-Butylbenzene	1.5	1.0	ug/L	01/10/13	R/T	SW8260
Styrene	ND	1.0	ug/L	01/10/13	R/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Tetrahydrofuran (THF)	ND	5.0	ug/L	01/10/13	R/T	SW8260
Toluene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Total Xylenes	ND	1.0	ug/L	01/10/13	R/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	01/10/13	R/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	01/10/13	R/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	01/10/13	R/T	SW8260
Trichloroethene	ND	1.0	ug/L	01/10/13	R/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	01/10/13	R/T	SW8260
Vinyl chloride	ND	1.0	ug/L	01/10/13	R/T	SW8260
<u>QA/QC Surrogates</u>						
% 1,2-dichlorobenzene-d4	101		%	01/10/13	R/T	70 - 130 %
% Bromofluorobenzene	95		%	01/10/13	R/T	70 - 130 %
% Dibromofluoromethane	78		%	01/10/13	R/T	70 - 130 %
% Toluene-d8	99		%	01/10/13	R/T	70 - 130 %
<u>Semivolatiles</u>						
1,2,4-Trichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
1,2-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
1,2-Diphenylhydrazine	ND	5.0	ug/L	01/11/13	DD	SW8270
1,3-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
2,4,5-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4,6-Trichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dichlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dimethylphenol	ND	10	ug/L	01/11/13	DD	SW8270
2,4-Dinitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
2,4-Dinitrotoluene	ND	5.0	ug/L	01/11/13	DD	SW8270
2,6-Dinitrotoluene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Chloronaphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Chlorophenol	ND	10	ug/L	01/11/13	DD	SW8270
2-Methylnaphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
2-Methylphenol (o-cresol)	ND	10	ug/L	01/11/13	DD	SW8270
2-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
2-Nitrophenol	ND	10	ug/L	01/11/13	DD	SW8270
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	01/11/13	DD	SW8270
3,3'-Dichlorobenzidine	ND	50	ug/L	01/11/13	DD	SW8270
3-Nitroaniline	ND	50	ug/L	01/11/13	DD	SW8270
4,6-Dinitro-2-methylphenol	ND	50	ug/L	01/11/13	DD	SW8270
4-Bromophenyl phenyl ether	ND	5.0	ug/L	01/11/13	DD	SW8270
4-Chloro-3-methylphenol	ND	20	ug/L	01/11/13	DD	SW8270
4-Chloroaniline	ND	20	ug/L	01/11/13	DD	SW8270
4-Chlorophenyl phenyl ether	ND	5.0	ug/L	01/11/13	DD	SW8270
4-Nitroaniline	ND	20	ug/L	01/11/13	DD	SW8270
4-Nitrophenol	ND	50	ug/L	01/11/13	DD	SW8270
Acetophenone	ND	5.0	ug/L	01/11/13	DD	SW8270
Aniline	ND	10	ug/L	01/11/13	DD	SW8270
Anthracene	ND	5.0	ug/L	01/11/13	DD	SW8270
Benzidine	ND	50	ug/L	01/11/13	DD	SW8270
Benzoic acid	ND	50	ug/L	01/11/13	DD	SW8270
Benzyl butyl phthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroethyl)ether	ND	5.0	ug/L	01/11/13	DD	SW8270
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	01/11/13	DD	SW8270
Carbazole	ND	5.0	ug/L	01/11/13	DD	SW8270
Dibenzofuran	ND	5.0	ug/L	01/11/13	DD	SW8270
Diethyl phthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Dimethylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Di-n-butylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Di-n-octylphthalate	ND	5.0	ug/L	01/11/13	DD	SW8270
Fluoranthene	ND	5.0	ug/L	01/11/13	DD	SW8270
Fluorene	ND	5.0	ug/L	01/11/13	DD	SW8270
Hexachlorobutadiene	ND	5.0	ug/L	01/11/13	DD	SW8270
Hexachlorocyclopentadiene	ND	5.0	ug/L	01/11/13	DD	SW8270
Isophorone	ND	5.0	ug/L	01/11/13	DD	SW8270
Naphthalene	ND	5.0	ug/L	01/11/13	DD	SW8270
Nitrobenzene	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodimethylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
N-Nitrosodiphenylamine	ND	5.0	ug/L	01/11/13	DD	SW8270
Phenol	ND	10	ug/L	01/11/13	DD	SW8270

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Pyrene	ND	5.0	ug/L	01/11/13	DD	SW8270
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	108		%	01/11/13	DD	15 - 130 %
% 2-Fluorobiphenyl	77		%	01/11/13	DD	30 - 130 %
% 2-Fluorophenol	80		%	01/11/13	DD	15 - 130 %
% Nitrobenzene-d5	97		%	01/11/13	DD	30 - 130 %
% Phenol-d5	78		%	01/11/13	DD	15 - 130 %
% Terphenyl-d14	96		%	01/11/13	DD	30 - 130 %
<u>Semivolatiles</u>						
1,2,4,5-Tetrachlorobenzene	ND	1.6	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Acenaphthylene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benz(a)anthracene	0.05	0.040	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(a)pyrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(b)fluoranthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(ghi)perylene	ND	3.0	ug/L	01/10/13	DD	SW8270 (SIM)
Benzo(k)fluoranthene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Bis(2-ethylhexyl)phthalate	ND	1.6	ug/L	01/10/13	DD	SW8270 (SIM)
Chrysene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Dibenz(a,h)anthracene	ND	0.010	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachlorobenzene	ND	0.060	ug/L	01/10/13	DD	SW8270 (SIM)
Hexachloroethane	ND	2.4	ug/L	01/10/13	DD	SW8270 (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	01/10/13	DD	SW8270 (SIM)
Pentachlorophenol	ND	0.80	ug/L	01/10/13	DD	SW8270 (SIM)
Phenanthrene	ND	0.050	ug/L	01/10/13	DD	SW8270 (SIM)
Pyridine	ND	0.50	ug/L	01/10/13	DD	SW8270 (SIM)
<u>QA/QC Surrogates</u>						
% 2,4,6-Tribromophenol	108		%	01/10/13	DD	15 - 130 %
% 2-Fluorobiphenyl	77		%	01/10/13	DD	30 - 130 %
% 2-Fluorophenol	80		%	01/10/13	DD	15 - 130 %
% Nitrobenzene-d5	97		%	01/10/13	DD	30 - 130 %
% Phenol-d5	78		%	01/10/13	DD	15 - 130 %
% Terphenyl-d14	96		%	01/10/13	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

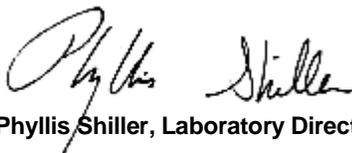
BRL=Below Reporting Level

Comments:

* For Pesticides, due to matrix interference from non target compounds in the sample an elevated RL was reported.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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Phyllis Shiller, Laboratory Director

January 17, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 17, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G
 Environmental Business Consulta
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: GROUND WATER
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date: 01/08/13
 01/09/13
 Time: 0:00
 15:08

Laboratory Data

SDG ID: GBD17311
 Phoenix ID: BD17316

Project ID: 291 METROPOLITAN AVE
 Client ID: MW 6

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Volatiles						
1,1,1,2-Tetrachloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1,1-Trichloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	01/10/13	R/T	SW8260
1,1,2-Trichloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1-Dichloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,1-Dichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
1,1-Dichloropropene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,3-Trichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2,4-Trimethylbenzene	1100	100	ug/L	01/10/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,2-Dibromoethane	ND	10	ug/L	01/10/13	R/T	SW8260
1,2-Dichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,2-Dichloroethane	ND	6.0	ug/L	01/10/13	R/T	SW8260
1,2-Dichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,3,5-Trimethylbenzene	280	10	ug/L	01/10/13	R/T	SW8260
1,3-Dichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
1,3-Dichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
1,4-Dichlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
2,2-Dichloropropane	ND	10	ug/L	01/10/13	R/T	SW8260
2-Chlorotoluene	ND	10	ug/L	01/10/13	R/T	SW8260
2-Hexanone	ND	50	ug/L	01/10/13	R/T	SW8260
2-Isopropyltoluene	ND	10	ug/L	01/10/13	R/T	SW8260
4-Chlorotoluene	ND	10	ug/L	01/10/13	R/T	SW8260
4-Methyl-2-pentanone	ND	50	ug/L	01/10/13	R/T	SW8260
Acetone	ND	250	ug/L	01/10/13	R/T	SW8260

Client ID: MW 6

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Acrylonitrile	ND	50	ug/L	01/10/13	R/T	SW8260
Benzene	350	70.0	ug/L	01/10/13	R/T	SW8260
Bromobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Bromochloromethane	ND	10	ug/L	01/10/13	R/T	SW8260
Bromodichloromethane	ND	5.0	ug/L	01/10/13	R/T	SW8260
Bromoform	ND	10	ug/L	01/10/13	R/T	SW8260
Bromomethane	ND	10	ug/L	01/10/13	R/T	SW8260
Carbon Disulfide	ND	50	ug/L	01/10/13	R/T	SW8260
Carbon tetrachloride	ND	10	ug/L	01/10/13	R/T	SW8260
Chlorobenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Chloroethane	ND	10	ug/L	01/10/13	R/T	SW8260
Chloroform	ND	10	ug/L	01/10/13	R/T	SW8260
Chloromethane	ND	10	ug/L	01/10/13	R/T	SW8260
cis-1,2-Dichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
cis-1,3-Dichloropropene	ND	5.0	ug/L	01/10/13	R/T	SW8260
Dibromochloromethane	ND	5.0	ug/L	01/10/13	R/T	SW8260
Dibromomethane	ND	10	ug/L	01/10/13	R/T	SW8260
Dichlorodifluoromethane	ND	10	ug/L	01/10/13	R/T	SW8260
Ethylbenzene	490	100	ug/L	01/10/13	R/T	SW8260
Hexachlorobutadiene	ND	4.0	ug/L	01/10/13	R/T	SW8260
Isopropylbenzene	48	10	ug/L	01/10/13	R/T	SW8260
m&p-Xylene	2800	100	ug/L	01/10/13	R/T	SW8260
Methyl ethyl ketone	ND	50	ug/L	01/10/13	R/T	SW8260
Methyl t-butyl ether (MTBE)	170	10	ug/L	01/10/13	R/T	SW8260
Methylene chloride	ND	10	ug/L	01/10/13	R/T	SW8260
Naphthalene	310	10	ug/L	01/10/13	R/T	SW8260
n-Butylbenzene	ND	10	ug/L	01/10/13	R/T	SW8260
n-Propylbenzene	77	10	ug/L	01/10/13	R/T	SW8260
o-Xylene	1100	100	ug/L	01/10/13	R/T	SW8260
p-Isopropyltoluene	27	10	ug/L	01/10/13	R/T	SW8260
sec-Butylbenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Styrene	ND	10	ug/L	01/10/13	R/T	SW8260
tert-Butylbenzene	ND	10	ug/L	01/10/13	R/T	SW8260
Tetrachloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
Tetrahydrofuran (THF)	ND	50	ug/L	01/10/13	R/T	SW8260
Toluene	460	100	ug/L	01/10/13	R/T	SW8260
Total Xylenes	3900	10	ug/L	01/10/13	R/T	SW8260
trans-1,2-Dichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
trans-1,3-Dichloropropene	ND	5.0	ug/L	01/10/13	R/T	SW8260
trans-1,4-dichloro-2-butene	ND	50	ug/L	01/10/13	R/T	SW8260
Trichloroethene	ND	10	ug/L	01/10/13	R/T	SW8260
Trichlorofluoromethane	ND	10	ug/L	01/10/13	R/T	SW8260
Trichlorotrifluoroethane	ND	10	ug/L	01/10/13	R/T	SW8260
Vinyl chloride	ND	10	ug/L	01/10/13	R/T	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	01/10/13	R/T	70 - 130 %
% Bromofluorobenzene	94		%	01/10/13	R/T	70 - 130 %
% Dibromofluoromethane	77		%	01/10/13	R/T	70 - 130 %
% Toluene-d8	103		%	01/10/13	R/T	70 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
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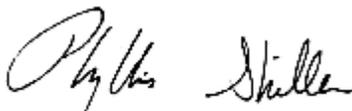
1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director

January 17, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

January 17, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G
 Environmental Business Consulta
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: GROUND WATER
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date: 01/08/13
 01/09/13
 Time: 0:00
 15:08

Laboratory Data

SDG ID: GBD17311
 Phoenix ID: BD17317

Project ID: 291 METROPOLITAN AVE
 Client ID: SVE 1

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	01/10/13	H/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	01/10/13	H/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	01/10/13	H/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
2-Hexanone	ND	5.0	ug/L	01/10/13	H/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	01/10/13	H/T	SW8260
Acetone	ND	25	ug/L	01/10/13	H/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Acrylonitrile	ND	5.0	ug/L	01/10/13	H/T	SW8260
Benzene	4.2	0.70	ug/L	01/10/13	H/T	SW8260
Bromobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Bromochloromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	01/10/13	H/T	SW8260
Bromoform	ND	1.0	ug/L	01/10/13	H/T	SW8260
Bromomethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	01/10/13	H/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chlorobenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chloroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chloroform	ND	1.0	ug/L	01/10/13	H/T	SW8260
Chloromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	01/10/13	H/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	01/10/13	H/T	SW8260
Dibromomethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Ethylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	01/10/13	H/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
m&p-Xylene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	01/10/13	H/T	SW8260
Methyl t-butyl ether (MTBE)	4.5	1.0	ug/L	01/10/13	H/T	SW8260
Methylene chloride	ND	1.0	ug/L	01/10/13	H/T	SW8260
Naphthalene	ND	1.0	ug/L	01/10/13	H/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
o-Xylene	ND	1.0	ug/L	01/10/13	H/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	01/10/13	H/T	SW8260
sec-Butylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Styrene	ND	1.0	ug/L	01/10/13	H/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Tetrahydrofuran (THF)	ND	5.0	ug/L	01/10/13	H/T	SW8260
Toluene	1.1	1.0	ug/L	01/10/13	H/T	SW8260
Total Xylenes	ND	1.0	ug/L	01/10/13	H/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	01/10/13	H/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	01/10/13	H/T	SW8260
Trichloroethene	ND	1.0	ug/L	01/10/13	H/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	01/10/13	H/T	SW8260
Vinyl chloride	ND	1.0	ug/L	01/10/13	H/T	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	01/10/13	H/T	70 - 130 %
% Bromofluorobenzene	101		%	01/10/13	H/T	70 - 130 %
% Dibromofluoromethane	90		%	01/10/13	H/T	70 - 130 %
% Toluene-d8	102		%	01/10/13	H/T	70 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
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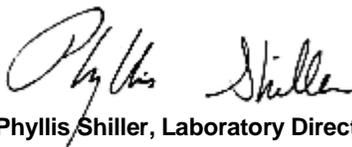
1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

January 17, 2013

Reviewed and Released by: Johanna Harrington, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

January 17, 2013

QA/QC Data

SDG I.D.: GBD17311

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 217683, QC Sample No: BD15091 (BD17311, BD17312, BD17313, BD17314, BD17315)													
Thallium - Water	BRL	<0.002	<0.002	NC	92.7	92.2	0.5	110	112	1.8	75 - 125	20	
QA/QC Batch 217983, QC Sample No: BD16312 (BD17311, BD17312, BD17313, BD17314, BD17315)													
<u>ICP Metals - Aqueous</u>													
Aluminum	BRL	0.171	0.167	2.40	94.3	96.2	2.0	96.6	94.3	2.4	75 - 125	20	
Antimony	BRL	<0.005	0.007	NC	100	103	3.0	103	100	3.0	75 - 125	20	
Arsenic	BRL	<0.004	<0.004	NC	96.6	98.5	1.9	98.0	96.2	1.9	75 - 125	20	
Barium	BRL	0.016	0.016	0	99.0	102	3.0	101	99.2	1.8	75 - 125	20	
Beryllium	BRL	<0.001	<0.001	NC	97.8	100	2.2	98.4	96.5	1.9	75 - 125	20	
Cadmium	BRL	<0.001	<0.001	NC	97.7	100	2.3	99.1	96.7	2.5	75 - 125	20	
Calcium	BRL	26.0	25.5	1.90	100	102	2.0	NC	NC	NC	75 - 125	20	
Chromium	BRL	<0.001	<0.001	NC	97.6	99.2	1.6	98.6	96.4	2.3	75 - 125	20	
Cobalt	BRL	<0.002	<0.002	NC	97.5	99.1	1.6	98.8	96.4	2.5	75 - 125	20	
Copper	BRL	0.020	0.018	NC	100	102	2.0	104	102	1.9	75 - 125	20	
Iron	BRL	0.092	0.090	2.20	98.3	100	1.7	98.3	95.9	2.5	75 - 125	20	
Lead	BRL	0.002	0.003	NC	97.5	98.9	1.4	98.7	96.1	2.7	75 - 125	20	
Magnesium	BRL	5.54	5.39	2.70	98.3	101	2.7	NC	NC	NC	75 - 125	20	
Manganese	BRL	0.026	0.026	0	97.7	100	2.3	99.2	96.9	2.3	75 - 125	20	
Nickel	BRL	0.002	0.002	NC	97.1	98.8	1.7	98.1	95.8	2.4	75 - 125	20	
Potassium	BRL	11.9	11.8	0.80	77.4	77.8	0.5	82.0	88.6	7.7	75 - 125	20	
Selenium	BRL	<0.010	<0.010	NC	95.6	97.0	1.5	96.3	94.0	2.4	75 - 125	20	
Silver	BRL	<0.001	<0.001	NC	97.0	98.8	1.8	99.4	97.6	1.8	75 - 125	20	
Sodium	BRL	86.0	82.8	3.80	93.4	93.6	0.2	NC	NC	NC	75 - 125	20	
Vanadium	BRL	<0.002	<0.002	NC	96.6	98.5	1.9	98.5	96.4	2.2	75 - 125	20	
Zinc	BRL	0.067	0.064	4.60	101	103	2.0	103	100	3.0	75 - 125	20	
QA/QC Batch 218138, QC Sample No: BD16336 (BD17311, BD17312, BD17313, BD17314, BD17315)													
Thallium (Dissolved)	BRL	<0.002	<0.005	NC	127	129	1.6	126			75 - 125	20	l,m
QA/QC Batch 218115, QC Sample No: BD17144 (BD17311, BD17312, BD17313, BD17314, BD17315)													
<u>ICP Metals - Dissolved</u>													
Aluminum	BRL	0.10	0.09	10.5	83.2	95.2	13.5	79.5	84.9	6.6	75 - 125	20	
Antimony	BRL	<0.005	<0.005	NC	96.5	104	7.5	98.5	102	3.5	75 - 125	20	
Arsenic	BRL	<0.004	<0.004	NC	94.6	104	9.5	98.2	101	2.8	75 - 125	20	
Barium	BRL	0.014	0.013	7.40	89.4	103	14.1	95.1	101	6.0	75 - 125	20	
Beryllium	BRL	<0.001	<0.001	NC	91.7	106	14.5	95.3	102	6.8	75 - 125	20	
Cadmium	BRL	<0.001	<0.001	NC	99.1	106	6.7	101	104	2.9	75 - 125	20	
Calcium	BRL	31.0	30.6	1.30	100	112	11.3	NC	NC	NC	75 - 125	20	
Chromium	BRL	<0.001	<0.001	NC	96.6	105	8.3	99.0	103	4.0	75 - 125	20	
Cobalt	BRL	0.002	0.002	NC	94.8	101	6.3	96.3	99.2	3.0	75 - 125	20	
Copper	BRL	<0.005	<0.005	NC	89.2	100	11.4	93.7	95.5	1.9	75 - 125	20	
Iron	BRL	0.208	0.206	1.00	95.6	102	6.5	97.3	100	2.7	75 - 125	20	
Lead	BRL	<0.002	<0.002	NC	97.5	107	9.3	99.4	104	4.5	75 - 125	20	
Magnesium	BRL	3.14	3.11	1.00	97.0	104	7.0	97.6	107	9.2	75 - 125	20	

QA/QC Data

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Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Manganese	BRL	0.016	0.016	0	97.7	104	6.2	99.5	102	2.5	75 - 125	20
Nickel	BRL	0.003	0.003	NC	98.9	109	9.7	101	105	3.9	75 - 125	20
Potassium	BRL	5.1	4.8	6.10	89.0	88.3	0.8	78.8	74.8	5.2	75 - 125	20
Selenium	BRL	<0.011	<0.011	NC	91.7	103	11.6	94.4	98.9	4.7	75 - 125	20
Silver	BRL	<0.001	<0.001	NC	87.5	97.9	11.2	91.6	93.7	2.3	75 - 125	20
Sodium	BRL	5.65	5.67	0.40	77.0	78.2	1.5	NC	NC	NC	75 - 125	20
Vanadium	BRL	<0.002	<0.002	NC	92.6	104	11.6	98.1	99.9	1.8	75 - 125	20
Zinc	BRL	0.041	0.040	2.50	94.6	101	6.5	97.5	100	2.5	75 - 125	20
QA/QC Batch 218167, QC Sample No: BD17321 (BD17311, BD17312, BD17313, BD17314, BD17315)												
Mercury - Water	BRL	<0.0002	<0.0002	NC	103	104	1.0	96.8	96.1	0.7	70 - 130	20

l = This parameter is outside laboratory lcs/lcsd specified recovery limits.
m = This parameter is outside laboratory ms/msd specified recovery limits.



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SDG I.D.: GBD17311

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 217895, QC Sample No: BD15540 (BD17311, BD17312, BD17313, BD17314, BD17315)									
<u>Pesticides - Ground Water</u>									
4,4' -DDD	ND	106	96	9.9				40 - 140	20
4,4' -DDE	ND	102	95	7.1				40 - 140	20
4,4' -DDT	ND	107	97	9.8				40 - 140	20
a-BHC	ND	105	98	6.9				40 - 140	20
a-Chlordane	ND	102	95	7.1				40 - 140	20
Alachlor	ND	N/A	N/A	NC				40 - 140	20
Aldrin	ND	86	78	9.8				40 - 140	20
b-BHC	ND	101	85	17.2				40 - 140	20
Chlordane	ND	N/A	N/A	NC				40 - 140	20
d-BHC	ND	101	92	9.3				40 - 140	20
Dieldrin	ND	105	97	7.9				40 - 140	20
Endosulfan I	ND	99	92	7.3				40 - 140	20
Endosulfan II	ND	97	90	7.5				40 - 140	20
Endosulfan sulfate	ND	102	93	9.2				40 - 140	20
Endrin	ND	119	108	9.7				40 - 140	20
Endrin aldehyde	ND	118	110	7.0				40 - 140	20
Endrin ketone	ND	100	92	8.3				40 - 140	20
g-BHC	ND	105	95	10.0				40 - 140	20
g-Chlordane	ND	99	92	7.3				40 - 140	20
Heptachlor	ND	99	97	2.0				40 - 140	20
Heptachlor epoxide	ND	101	94	7.2				40 - 140	20
Methoxychlor	ND	111	99	11.4				40 - 140	20
Toxaphene	ND	N/A	N/A	NC				40 - 140	20
% DCBP	74	83	78	6.2				30 - 150	20
% TCMX	74	85	78	8.6				30 - 150	20

Comment:

A LCS and LCSD duplicate were performed instead of a matrix spike and matrix spike duplicate, unless otherwise noted. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane.

QA/QC Batch 218122, QC Sample No: BD17310 (BD17311, BD17312, BD17313, BD17314, BD17315)

Polychlorinated Biphenyls - Ground Water

PCB-1016	ND	81	76	6.4				40 - 140	20
PCB-1221	ND							40 - 140	20
PCB-1232	ND							40 - 140	20
PCB-1242	ND							40 - 140	20
PCB-1248	ND							40 - 140	20
PCB-1254	ND							40 - 140	20
PCB-1260	ND	84	79	6.1				40 - 140	20
PCB-1262	ND							40 - 140	20
PCB-1268	ND							40 - 140	20
% DCBP (Surrogate Rec)	66	59	57	3.4				30 - 150	20
% TCMX (Surrogate Rec)	84	85	86	1.2				30 - 150	20

QA/QC Data

SDG I.D.: GBD17311

Parameter	Blank	LCS %	LCS D %	LCS RPD	MS %	MS D %	MS RPD	% Rec Limits	% RPD Limits
Comment:									
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.									
QA/QC Batch 218119, QC Sample No: BD17311 (BD17311, BD17312, BD17313, BD17314, BD17315)									
Semivolatiles - Ground Water									
1,2,4,5-Tetrachlorobenzene	ND	88	88	0.0				30 - 130	20
1,2,4-Trichlorobenzene	ND	82	82	0.0				30 - 130	20
1,2-Dichlorobenzene	ND	77	78	1.3				30 - 130	20
1,2-Diphenylhydrazine	ND	69	67	2.9				30 - 130	20
1,3-Dichlorobenzene	ND	75	75	0.0				30 - 130	20
1,4-Dichlorobenzene	ND	79	79	0.0				30 - 130	20
2,4,5-Trichlorophenol	ND	81	79	2.5				30 - 130	20
2,4,6-Trichlorophenol	ND	84	82	2.4				30 - 130	20
2,4-Dichlorophenol	ND	79	78	1.3				30 - 130	20
2,4-Dimethylphenol	ND	57	56	1.8				30 - 130	20
2,4-Dinitrophenol	ND	68	65	4.5				30 - 130	20
2,4-Dinitrotoluene	ND	84	81	3.6				30 - 130	20
2,6-Dinitrotoluene	ND	82	81	1.2				30 - 130	20
2-Chloronaphthalene	ND	83	83	0.0				30 - 130	20
2-Chlorophenol	ND	70	70	0.0				30 - 130	20
2-Methylnaphthalene	ND	82	82	0.0				30 - 130	20
2-Methylphenol (o-cresol)	ND	71	71	0.0				30 - 130	20
2-Nitroaniline	ND	149	141	5.5				30 - 130	20
2-Nitrophenol	ND	75	75	0.0				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	72	71	1.4				30 - 130	20
3,3'-Dichlorobenzidine	ND	N/A	N/A	NC				30 - 130	20
3-Nitroaniline	ND	75	72	4.1				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	94	93	1.1				30 - 130	20
4-Bromophenyl phenyl ether	ND	86	87	1.2				30 - 130	20
4-Chloro-3-methylphenol	ND	77	78	1.3				30 - 130	20
4-Chloroaniline	ND	36	34	5.7				30 - 130	20
4-Chlorophenyl phenyl ether	ND	91	90	1.1				30 - 130	20
4-Nitroaniline	ND	72	72	0.0				30 - 130	20
4-Nitrophenol	ND	73	69	5.6				30 - 130	20
Acenaphthene	ND	100	99	1.0				30 - 130	20
Acenaphthylene	ND	76	75	1.3				30 - 130	20
Acetophenone	ND	81	80	1.2				30 - 130	20
Aniline	ND	N/A	N/A	NC				30 - 130	20
Anthracene	ND	102	100	2.0				30 - 130	20
Benz(a)anthracene	ND	99	98	1.0				30 - 130	20
Benzidine	ND	N/A	N/A	NC				30 - 130	20
Benzo(a)pyrene	ND	101	100	1.0				30 - 130	20
Benzo(b)fluoranthene	ND	122	119	2.5				30 - 130	20
Benzo(ghi)perylene	ND	95	94	1.1				30 - 130	20
Benzo(k)fluoranthene	ND	118	117	0.9				30 - 130	20
Benzoic acid	ND	N/A	N/A	NC				30 - 130	20
Benzyl butyl phthalate	ND	72	70	2.8				30 - 130	20
Bis(2-chloroethoxy)methane	ND	41	41	0.0				30 - 130	20
Bis(2-chloroethyl)ether	ND	68	67	1.5				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	66	66	0.0				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	88	87	1.1				30 - 130	20
Carbazole	ND	83	82	1.2				30 - 130	20
Chrysene	ND	100	100	0.0				30 - 130	20

QA/QC Data

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Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dibenz(a,h)anthracene	ND	102	100	2.0				30 - 130	20
Dibenzofuran	ND	84	83	1.2				30 - 130	20
Diethyl phthalate	ND	89	87	2.3				30 - 130	20
Dimethylphthalate	ND	85	85	0.0				30 - 130	20
Di-n-butylphthalate	ND	88	86	2.3				30 - 130	20
Di-n-octylphthalate	ND	89	91	2.2				30 - 130	20
Fluoranthene	ND	85	84	1.2				30 - 130	20
Fluorene	ND	104	103	1.0				30 - 130	20
Hexachlorobenzene	ND	91	93	2.2				30 - 130	20
Hexachlorobutadiene	ND	92	91	1.1				30 - 130	20
Hexachlorocyclopentadiene	ND	42	41	2.4				30 - 130	20
Hexachloroethane	ND	75	75	0.0				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	99	97	2.0				30 - 130	20
Isophorone	ND	79	78	1.3				30 - 130	20
Naphthalene	ND	87	87	0.0				30 - 130	20
Nitrobenzene	ND	74	74	0.0				30 - 130	20
N-Nitrosodimethylamine	ND	59	60	1.7				30 - 130	20
N-Nitrosodi-n-propylamine	ND	73	73	0.0				30 - 130	20
N-Nitrosodiphenylamine	ND	65	65	0.0				30 - 130	20
Pentachloronitrobenzene	ND	90	89	1.1				30 - 130	20
Pentachlorophenol	ND	68	65	4.5				30 - 130	20
Phenanthrene	ND	104	104	0.0				30 - 130	20
Phenol	ND	65	64	1.6				30 - 130	20
Pyrene	ND	100	99	1.0				30 - 130	20
Pyridine	ND	40	41	2.5				30 - 130	20
% 2,4,6-Tribromophenol	106	82	81	1.2				30 - 130	20
% 2-Fluorobiphenyl	86	82	82	0.0				30 - 130	20
% 2-Fluorophenol	87	61	61	0.0				30 - 130	20
% Nitrobenzene-d5	103	72	72	0.0				30 - 130	20
% Phenol-d5	39	63	62	1.6				30 - 130	20
% Terphenyl-d14	105	93	91	2.2				30 - 130	20

QA/QC Batch 218313, QC Sample No: BD17314 (BD17311 (10X) , BD17312 (100X) , BD17313 (10X) , BD17314, BD17315 (10X) , BD17316 (100X) , BD17317)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	110	112	1.8	95	96	1.0	70 - 130	30
1,1,1-Trichloroethane	ND	95	98	3.1	88	89	1.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	89	96	7.6	86	90	4.5	70 - 130	30
1,1,2-Trichloroethane	ND	94	99	5.2	87	88	1.1	70 - 130	30
1,1-Dichloroethane	ND	103	110	6.6	102	104	1.9	70 - 130	30
1,1-Dichloroethene	ND	94	99	5.2	94	95	1.1	70 - 130	30
1,1-Dichloropropene	ND	85	86	1.2	81	78	3.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	92	94	2.2	74	85	13.8	70 - 130	30
1,2,3-Trichloropropane	ND	88	99	11.8	88	90	2.2	70 - 130	30
1,2,4-Trichlorobenzene	ND	88	92	4.4	78	81	3.8	70 - 130	30
1,2,4-Trimethylbenzene	ND	95	97	2.1	89	88	1.1	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	100	112	11.3	88	79	10.8	70 - 130	30
1,2-Dibromoethane	ND	95	98	3.1	88	91	3.4	70 - 130	30
1,2-Dichlorobenzene	ND	92	96	4.3	88	87	1.1	70 - 130	30
1,2-Dichloroethane	ND	104	109	4.7	99	104	4.9	70 - 130	30
1,2-Dichloropropane	ND	95	98	3.1	89	92	3.3	70 - 130	30
1,3,5-Trimethylbenzene	ND	90	93	3.3	87	86	1.2	70 - 130	30
1,3-Dichlorobenzene	ND	92	96	4.3	86	86	0.0	70 - 130	30

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Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,3-Dichloropropane	ND	96	99	3.1	90	93	3.3	70 - 130	30
1,4-Dichlorobenzene	ND	94	95	1.1	88	86	2.3	70 - 130	30
2,2-Dichloropropane	ND	94	100	6.2	67	67	0.0	70 - 130	30
2-Chlorotoluene	ND	90	92	2.2	88	85	3.5	70 - 130	30
2-Hexanone	ND	109	125	13.7	107	113	5.5	70 - 130	30
2-Isopropyltoluene	ND	88	90	2.2	87	85	2.3	70 - 130	30
4-Chlorotoluene	ND	88	90	2.2	86	84	2.4	70 - 130	30
4-Methyl-2-pentanone	ND	96	107	10.8	93	101	8.2	70 - 130	30
Acetone	ND	82	103	22.7	97	97	0.0	70 - 130	30
Acrylonitrile	ND	99	107	7.8	106	113	6.4	70 - 130	30
Benzene	ND	91	94	3.2	88	88	0.0	70 - 130	30
Bromobenzene	ND	88	90	2.2	84	83	1.2	70 - 130	30
Bromochloromethane	ND	85	93	9.0	82	85	3.6	70 - 130	30
Bromodichloromethane	ND	105	108	2.8	94	96	2.1	70 - 130	30
Bromoform	ND	116	111	4.4	90	92	2.2	70 - 130	30
Bromomethane	ND	85	95	11.1	89	106	17.4	70 - 130	30
Carbon Disulfide	ND	80	84	4.9	95	97	2.1	70 - 130	30
Carbon tetrachloride	ND	108	108	0.0	93	92	1.1	70 - 130	30
Chlorobenzene	ND	94	95	1.1	88	87	1.1	70 - 130	30
Chloroethane	ND	100	104	3.9	100	103	3.0	70 - 130	30
Chloroform	ND	94	100	6.2	88	91	3.4	70 - 130	30
Chloromethane	ND	85	92	7.9	92	96	4.3	70 - 130	30
cis-1,2-Dichloroethene	ND	110	114	3.6	106	107	0.9	70 - 130	30
cis-1,3-Dichloropropene	ND	100	101	1.0	86	89	3.4	70 - 130	30
Dibromochloromethane	ND	106	108	1.9	89	92	3.3	70 - 130	30
Dibromomethane	ND	96	99	3.1	89	91	2.2	70 - 130	30
Dichlorodifluoromethane	ND	75	75	0.0	91	89	2.2	70 - 130	30
Ethylbenzene	ND	93	92	1.1	89	85	4.6	70 - 130	30
Hexachlorobutadiene	ND	78	76	2.6	74	73	1.4	70 - 130	30
Isopropylbenzene	ND	88	89	1.1	86	83	3.6	70 - 130	30
m&p-Xylene	ND	95	94	1.1	90	87	3.4	70 - 130	30
Methyl ethyl ketone	ND	86	100	15.1	87	104	17.8	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	101	107	5.8	106	110	3.7	70 - 130	30
Methylene chloride	ND	85	92	7.9	84	89	5.8	70 - 130	30
Naphthalene	ND	91	98	7.4	77	88	13.3	70 - 130	30
n-Butylbenzene	ND	88	91	3.4	81	82	1.2	70 - 130	30
n-Propylbenzene	ND	90	92	2.2	83	82	1.2	70 - 130	30
o-Xylene	ND	94	94	0.0	90	89	1.1	70 - 130	30
p-Isopropyltoluene	ND	92	93	1.1	85	84	1.2	70 - 130	30
sec-Butylbenzene	ND	87	89	2.3	84	83	1.2	70 - 130	30
Styrene	ND	95	94	1.1	93	92	1.1	70 - 130	30
tert-Butylbenzene	ND	91	91	0.0	87	84	3.5	70 - 130	30
Tetrachloroethene	ND	88	85	3.5	80	77	3.8	70 - 130	30
Tetrahydrofuran (THF)	ND	80	98	20.2	86	93	7.8	70 - 130	30
Toluene	ND	94	96	2.1	90	89	1.1	70 - 130	30
trans-1,2-Dichloroethene	ND	102	107	4.8	102	101	1.0	70 - 130	30
trans-1,3-Dichloropropene	ND	109	110	0.9	94	100	6.2	70 - 130	30
trans-1,4-dichloro-2-butene	ND	119	127	6.5	98	100	2.0	70 - 130	30
Trichloroethene	ND	94	94	0.0	86	83	3.6	70 - 130	30
Trichlorofluoromethane	ND	95	97	2.1	89	88	1.1	70 - 130	30
Trichlorotrifluoroethane	ND	90	90	0.0	88	84	4.7	70 - 130	30
Vinyl chloride	ND	86	91	5.6	90	91	1.1	70 - 130	30
% 1,2-dichlorobenzene-d4	101	98	101	3.0	98	99	1.0	70 - 130	30

m

QA/QC Data

SDG I.D.: GBD17311

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% Bromofluorobenzene	100	102	103	1.0	101	103	2.0	70 - 130	30
% Dibromofluoromethane	89	95	94	1.1	90	93	3.3	70 - 130	30
% Toluene-d8	102	101	102	1.0	99	102	3.0	70 - 130	30

QA/QC Batch 218208, QC Sample No: BD17576 (BD17311, BD17312 (10X) , BD17313, BD17315, BD17316 (10X))

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	103	95	8.1	96	94	2.1	70 - 130	30	
1,1,1-Trichloroethane	ND	89	79	11.9	78	74	5.3	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	100	91	9.4	97	96	1.0	70 - 130	30	
1,1,2-Trichloroethane	ND	109	101	7.6	102	101	1.0	70 - 130	30	
1,1-Dichloroethane	ND	89	78	13.2	81	77	5.1	70 - 130	30	
1,1-Dichloroethene	ND	96	80	18.2	86	81	6.0	70 - 130	30	
1,1-Dichloropropene	ND	89	79	11.9	81	78	3.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	115	109	5.4	105	103	1.9	70 - 130	30	
1,2,3-Trichloropropane	ND	88	83	5.8	87	87	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	111	103	7.5	103	99	4.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	110	101	8.5	105	95	10.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	113	98	14.2	99	103	4.0	70 - 130	30	
1,2-Dibromoethane	ND	106	98	7.8	101	99	2.0	70 - 130	30	
1,2-Dichlorobenzene	ND	103	95	8.1	98	92	6.3	70 - 130	30	
1,2-Dichloroethane	ND	91	84	8.0	87	85	2.3	70 - 130	30	
1,2-Dichloropropane	ND	112	103	8.4	107	102	4.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	108	100	7.7	100	92	8.3	70 - 130	30	
1,3-Dichlorobenzene	ND	109	101	7.6	100	96	4.1	70 - 130	30	
1,3-Dichloropropane	ND	103	95	8.1	98	98	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	104	96	8.0	97	91	6.4	70 - 130	30	
2,2-Dichloropropane	ND	114	119	4.3	97	88	9.7	70 - 130	30	
2-Chlorotoluene	ND	111	101	9.4	103	96	7.0	70 - 130	30	
2-Hexanone	ND	102	94	8.2	99	99	0.0	70 - 130	30	
2-Isopropyltoluene	ND	106	97	8.9	100	92	8.3	70 - 130	30	
4-Chlorotoluene	ND	108	99	8.7	101	95	6.1	70 - 130	30	
4-Methyl-2-pentanone	ND	97	89	8.6	97	94	3.1	70 - 130	30	
Acetone	ND	72	62	14.9	64	64	0.0	70 - 130	30	l,m
Acrylonitrile	ND	77	68	12.4	68	72	5.7	70 - 130	30	l,m
Benzene	ND	110	104	5.6	107	102	4.8	70 - 130	30	
Bromobenzene	ND	108	98	9.7	101	98	3.0	70 - 130	30	
Bromochloromethane	ND	88	77	13.3	79	78	1.3	70 - 130	30	
Bromodichloromethane	ND	103	95	8.1	95	93	2.1	70 - 130	30	
Bromoform	ND	98	90	8.5	86	87	1.2	70 - 130	30	
Bromomethane	ND	88	79	10.8	83	89	7.0	70 - 130	30	
Carbon Disulfide	ND	83	70	17.0	89	85	4.6	70 - 130	30	
Carbon tetrachloride	ND	86	77	11.0	74	69	7.0	70 - 130	30	m
Chlorobenzene	ND	107	99	7.8	99	94	5.2	70 - 130	30	
Chloroethane	ND	88	75	16.0	81	75	7.7	70 - 130	30	
Chloroform	ND	86	76	12.3	78	74	5.3	70 - 130	30	
Chloromethane	ND	118	99	17.5	113	107	5.5	70 - 130	30	
cis-1,2-Dichloroethene	ND	89	81	9.4	79	78	1.3	70 - 130	30	
cis-1,3-Dichloropropene	ND	107	103	3.8	101	96	5.1	70 - 130	30	
Dibromochloromethane	ND	104	95	9.0	94	92	2.2	70 - 130	30	
Dibromomethane	ND	102	94	8.2	98	95	3.1	70 - 130	30	
Dichlorodifluoromethane	ND	102	75	30.5	95	88	7.7	70 - 130	30	
Ethylbenzene	ND	109	99	9.6	104	97	7.0	70 - 130	30	
Hexachlorobutadiene	ND	100	95	5.1	93	83	11.4	70 - 130	30	

QA/QC Data

SDG I.D.: GBD17311

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Isopropylbenzene	ND	115	104	10.0	103	95	8.1	70 - 130	30
m&p-Xylene	ND	105	97	7.9	103	94	9.1	70 - 130	30
Methyl ethyl ketone	ND	88	76	14.6	85	88	3.5	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	74	68	8.5	76	74	2.7	70 - 130	30
Methylene chloride	ND	84	74	12.7	79	76	3.9	70 - 130	30
Naphthalene	ND	124	120	3.3	>150	128	NC	70 - 130	30
n-Butylbenzene	ND	112	104	7.4	102	91	11.4	70 - 130	30
n-Propylbenzene	ND	117	107	8.9	102	95	7.1	70 - 130	30
o-Xylene	ND	110	100	9.5	102	95	7.1	70 - 130	30
p-Isopropyltoluene	ND	113	104	8.3	101	92	9.3	70 - 130	30
sec-Butylbenzene	ND	109	98	10.6	99	91	8.4	70 - 130	30
Styrene	ND	106	99	6.8	100	96	4.1	70 - 130	30
tert-Butylbenzene	ND	111	100	10.4	100	92	8.3	70 - 130	30
Tetrachloroethene	ND	110	100	9.5	101	94	7.2	70 - 130	30
Tetrahydrofuran (THF)	ND	84	75	11.3	78	77	1.3	70 - 130	30
Toluene	ND	110	102	7.5	109	101	7.6	70 - 130	30
trans-1,2-Dichloroethene	ND	91	81	11.6	84	78	7.4	70 - 130	30
trans-1,3-Dichloropropene	ND	101	96	5.1	95	92	3.2	70 - 130	30
trans-1,4-dichloro-2-butene	ND	106	105	0.9	99	96	3.1	70 - 130	30
Trichloroethene	ND	115	106	8.1	102	96	6.1	70 - 130	30
Trichlorofluoromethane	ND	95	79	18.4	79	74	6.5	70 - 130	30
Trichlorotrifluoroethane	ND	97	82	16.8	86	77	11.0	70 - 130	30
Vinyl chloride	ND	113	94	18.4	104	98	5.9	70 - 130	30
% 1,2-dichlorobenzene-d4	100	101	98	3.0	100	100	0.0	70 - 130	30
% Bromofluorobenzene	91	96	96	0.0	96	97	1.0	70 - 130	30
% Dibromofluoromethane	77	80	80	0.0	78	79	1.3	70 - 130	30
% Toluene-d8	100	100	100	0.0	99	99	0.0	70 - 130	30

QA/QC Batch 218442, QC Sample No: BD18392 (BD17311 (50X) , BD17312 (500X) , BD17314 (5X) , BD17315 (50X))

Volatiles - Ground Water

Acetone	ND	100	105	4.9	100	107	6.8	70 - 130	30
m&p-Xylene	ND	95	110	14.6	104	108	3.8	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	103	112	8.4	111	112	0.9	70 - 130	30
Toluene	ND	95	110	14.6	108	109	0.9	70 - 130	30

l = This parameter is outside laboratory lcs/lcsd specified recovery limits.

m = This parameter is outside laboratory ms/msd specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

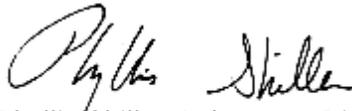
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Inf - Interference


 Phyllis Shiller, Laboratory Director
 January 17, 2013

Thursday, January 17, 2013

Requested Criteria: 375, 375RS

State: NY

Sample Criteria Exceedences Report

Page 1 of 1

GBD17311 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



NY Temperature Narration

January 17, 2013

SDG I.D.: GBD17311

The samples in this delivery group were received at 4°C.
(Note acceptance criteria is above freezing up to 6°C)



Tuesday, February 05, 2013

Attn: Mr. Charles B. Sosik, P.G.
Environmental Business Consultants
1808 Middle Country Rd
Ridge NY 11961-2406

Project ID: 291 METROPOLITAN AVE
Sample ID#s: BD24326 - BD24332

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 February 05, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: AIR
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/25/13 10:10
 01/28/13 16:49

Laboratory Data

SDG ID: GBD24326
 Phoenix ID: BD24326

Project ID: 291 METROPOLITAN AVE
 Client ID: SG 1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference	
<u>Volatiles (TO15)</u>								
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15	1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15	
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15	
1,1,2-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15	
1,1-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15	
1,1-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15	
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	01/29/13	KCA	TO15	
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15	
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	01/29/13	KCA	TO15	
1,2-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15	
1,2-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15	
1,2-dichloropropane	ND	0.216	ND	1.00	01/29/13	KCA	TO15	
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	01/29/13	KCA	TO15	
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15	
1,3-Butadiene	ND	0.452	ND	1.00	01/29/13	KCA	TO15	
1,3-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15	
1,4-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15	
1,4-Dioxane	ND	0.278	ND	1.00	01/29/13	KCA	TO15	
2-Hexanone(MBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15	1
4-Ethyltoluene	ND	0.204	ND	1.00	01/29/13	KCA	TO15	1
4-Isopropyltoluene	ND	0.182	ND	1.00	01/29/13	KCA	TO15	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15	
Acetone	23.3	0.421	55.3	1.00	01/29/13	KCA	TO15	
Acrylonitrile	ND	0.461	ND	1.00	01/29/13	KCA	TO15	
Benzene	0.43	0.313	1.37	1.00	01/29/13	KCA	TO15	
Benzyl chloride	ND	0.193	ND	1.00	01/29/13	KCA	TO15	
Bromodichloromethane	ND	0.149	ND	1.00	01/29/13	KCA	TO15	

Client ID: SG 1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Bromoform	ND	0.097	ND	1.00	01/29/13	KCA	TO15
Bromomethane	ND	0.258	ND	1.00	01/29/13	KCA	TO15
Carbon Disulfide	1.77	0.321	5.51	1.00	01/29/13	KCA	TO15
Carbon Tetrachloride	0.05	0.040	0.314	0.25	01/29/13	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.00	01/29/13	KCA	TO15
Chloroethane	ND	0.379	ND	1.00	01/29/13	KCA	TO15
Chloroform	ND	0.205	ND	1.00	01/29/13	KCA	TO15
Chloromethane	ND	0.484	ND	1.00	01/29/13	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15 1
Cyclohexane	ND	0.291	ND	1.00	01/29/13	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.00	01/29/13	KCA	TO15
Dichlorodifluoromethane	0.49	0.202	2.42	1.00	01/29/13	KCA	TO15
Ethanol	10.6	0.531	20.0	1.00	01/29/13	KCA	TO15 1
Ethyl acetate	0.8	0.278	2.88	1.00	01/29/13	KCA	TO15 1
Ethylbenzene	ND	0.230	ND	1.00	01/29/13	KCA	TO15
Heptane	0.29	0.244	1.19	1.00	01/29/13	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.00	01/29/13	KCA	TO15
Hexane	ND	0.284	ND	1.00	01/29/13	KCA	TO15
Isopropylalcohol	ND	0.407	ND	1.00	01/29/13	KCA	TO15
Isopropylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
m,p-Xylene	0.66	0.230	2.86	1.00	01/29/13	KCA	TO15
Methyl Ethyl Ketone	0.43	0.339	1.27	1.00	01/29/13	KCA	TO15
Methyl tert-butyl ether(MTBE)	5.67	0.278	20.4	1.00	01/29/13	KCA	TO15
Methylene Chloride	1.11	0.288	3.85	1.00	01/29/13	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
o-Xylene	ND	0.230	ND	1.00	01/29/13	KCA	TO15
Propylene	ND	0.581	ND	1.00	01/29/13	KCA	TO15 1
sec-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
Styrene	ND	0.235	ND	1.00	01/29/13	KCA	TO15
Tetrachloroethene	1.67	0.037	11.3	0.25	01/29/13	KCA	TO15
Tetrahydrofuran	ND	0.339	ND	1.00	01/29/13	KCA	TO15 1
Toluene	1.97	0.266	7.42	1.00	01/29/13	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15
Trichloroethene	ND	0.047	ND	0.25	01/29/13	KCA	TO15
Trichlorofluoromethane	0.23	0.178	1.29	1.00	01/29/13	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.00	01/29/13	KCA	TO15
Vinyl Chloride	ND	0.098	ND	0.25	01/29/13	KCA	TO15
<u>QA/QC Surrogates</u>							
% Bromofluorobenzene	104	%	104	%	01/29/13	KCA	TO15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

February 05, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 February 05, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: AIR
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/25/13 10:15
 01/28/13 16:49

Laboratory Data

SDG ID: GBD24326
 Phoenix ID: BD24327

Project ID: 291 METROPOLITAN AVE
 Client ID: SG 2

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
<u>Volatiles (TO15)</u>							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15 1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15
1,1,2-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,2-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,2-dichloropropane	ND	0.216	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	01/29/13	KCA	TO15
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,3-Butadiene	ND	0.452	ND	1.00	01/29/13	KCA	TO15
1,3-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dioxane	ND	0.278	ND	1.00	01/29/13	KCA	TO15
2-Hexanone(MBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15 1
4-Ethyltoluene	ND	0.204	ND	1.00	01/29/13	KCA	TO15 1
4-Isopropyltoluene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15
Acetone	4.86	0.421	11.5	1.00	01/29/13	KCA	TO15
Acrylonitrile	ND	0.461	ND	1.00	01/29/13	KCA	TO15
Benzene	0.42	0.313	1.34	1.00	01/29/13	KCA	TO15
Benzyl chloride	ND	0.193	ND	1.00	01/29/13	KCA	TO15
Bromodichloromethane	ND	0.149	ND	1.00	01/29/13	KCA	TO15

Client ID: SG 2

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Bromoform	ND	0.097	ND	1.00	01/29/13	KCA	TO15
Bromomethane	ND	0.258	ND	1.00	01/29/13	KCA	TO15
Carbon Disulfide	0.84	0.321	2.61	1.00	01/29/13	KCA	TO15
Carbon Tetrachloride	0.07	0.040	0.440	0.25	01/29/13	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.00	01/29/13	KCA	TO15
Chloroethane	ND	0.379	ND	1.00	01/29/13	KCA	TO15
Chloroform	0.3	0.205	1.46	1.00	01/29/13	KCA	TO15
Chloromethane	ND	0.484	ND	1.00	01/29/13	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15 1
Cyclohexane	ND	0.291	ND	1.00	01/29/13	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.00	01/29/13	KCA	TO15
Dichlorodifluoromethane	0.51	0.202	2.52	1.00	01/29/13	KCA	TO15
Ethanol	9.26	0.531	17.4	1.00	01/29/13	KCA	TO15 1
Ethyl acetate	0.35	0.278	1.26	1.00	01/29/13	KCA	TO15 1
Ethylbenzene	0.61	0.230	2.65	1.00	01/29/13	KCA	TO15
Heptane	ND	0.244	ND	1.00	01/29/13	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.00	01/29/13	KCA	TO15
Hexane	1.64	0.284	5.78	1.00	01/29/13	KCA	TO15
Isopropylalcohol	0.64	0.407	1.57	1.00	01/29/13	KCA	TO15
Isopropylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
m,p-Xylene	3.12	0.230	13.5	1.00	01/29/13	KCA	TO15
Methyl Ethyl Ketone	0.43	0.339	1.27	1.00	01/29/13	KCA	TO15
Methyl tert-butyl ether(MTBE)	0.37	0.278	1.33	1.00	01/29/13	KCA	TO15
Methylene Chloride	1.75	0.288	6.08	1.00	01/29/13	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
o-Xylene	ND	0.230	ND	1.00	01/29/13	KCA	TO15
Propylene	ND	0.581	ND	1.00	01/29/13	KCA	TO15 1
sec-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
Styrene	ND	0.235	ND	1.00	01/29/13	KCA	TO15
Tetrachloroethene	1.01	0.037	6.85	0.25	01/29/13	KCA	TO15
Tetrahydrofuran	ND	0.339	ND	1.00	01/29/13	KCA	TO15 1
Toluene	1.01	0.266	3.80	1.00	01/29/13	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15
Trichloroethene	ND	0.047	ND	0.25	01/29/13	KCA	TO15
Trichlorofluoromethane	0.24	0.178	1.35	1.00	01/29/13	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.00	01/29/13	KCA	TO15
Vinyl Chloride	ND	0.098	ND	0.25	01/29/13	KCA	TO15
<u>QA/QC Surrogates</u>							
% Bromofluorobenzene	104	%	104	%	01/29/13	KCA	TO15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
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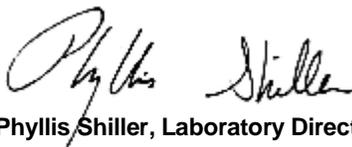
1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

February 05, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 February 05, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: AIR
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/25/13 11:05
 01/28/13 16:49

Laboratory Data

SDG ID: GBD24326
 Phoenix ID: BD24328

Project ID: 291 METROPOLITAN AVE
 Client ID: SG 3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
<u>Volatiles (TO15)</u>							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15 1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15
1,1,2-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,2-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,2-dichloropropane	ND	0.216	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	01/29/13	KCA	TO15
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,3-Butadiene	ND	0.452	ND	1.00	01/29/13	KCA	TO15
1,3-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dioxane	ND	0.278	ND	1.00	01/29/13	KCA	TO15
2-Hexanone(MBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15 1
4-Ethyltoluene	ND	0.204	ND	1.00	01/29/13	KCA	TO15 1
4-Isopropyltoluene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15
Acetone	1.52	0.421	3.61	1.00	01/29/13	KCA	TO15
Acrylonitrile	ND	0.461	ND	1.00	01/29/13	KCA	TO15
Benzene	ND	0.313	ND	1.00	01/29/13	KCA	TO15
Benzyl chloride	ND	0.193	ND	1.00	01/29/13	KCA	TO15
Bromodichloromethane	ND	0.149	ND	1.00	01/29/13	KCA	TO15

Client ID: SG 3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Bromoform	ND	0.097	ND	1.00	01/29/13	KCA	TO15
Bromomethane	ND	0.258	ND	1.00	01/29/13	KCA	TO15
Carbon Disulfide	3.13	0.321	9.74	1.00	01/29/13	KCA	TO15
Carbon Tetrachloride	0.14	0.040	0.880	0.25	01/29/13	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.00	01/29/13	KCA	TO15
Chloroethane	ND	0.379	ND	1.00	01/29/13	KCA	TO15
Chloroform	ND	0.205	ND	1.00	01/29/13	KCA	TO15
Chloromethane	ND	0.484	ND	1.00	01/29/13	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15 1
Cyclohexane	ND	0.291	ND	1.00	01/29/13	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.00	01/29/13	KCA	TO15
Dichlorodifluoromethane	ND	0.202	ND	1.00	01/29/13	KCA	TO15
Ethanol	9.71	0.531	18.3	1.00	01/29/13	KCA	TO15 1
Ethyl acetate	0.57	0.278	2.05	1.00	01/29/13	KCA	TO15 1
Ethylbenzene	0.28	0.230	1.22	1.00	01/29/13	KCA	TO15
Heptane	ND	0.244	ND	1.00	01/29/13	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.00	01/29/13	KCA	TO15
Hexane	ND	0.284	ND	1.00	01/29/13	KCA	TO15
Isopropylalcohol	0.69	0.407	1.70	1.00	01/29/13	KCA	TO15
Isopropylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
m,p-Xylene	0.93	0.230	4.04	1.00	01/29/13	KCA	TO15
Methyl Ethyl Ketone	ND	0.339	ND	1.00	01/29/13	KCA	TO15
Methyl tert-butyl ether(MTBE)	14.1	0.278	50.8	1.00	01/29/13	KCA	TO15
Methylene Chloride	0.54	0.288	1.87	1.00	01/29/13	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
o-Xylene	0.31	0.230	1.34	1.00	01/29/13	KCA	TO15
Propylene	ND	0.581	ND	1.00	01/29/13	KCA	TO15 1
sec-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
Styrene	ND	0.235	ND	1.00	01/29/13	KCA	TO15
Tetrachloroethene	5.58	0.037	37.8	0.25	01/29/13	KCA	TO15
Tetrahydrofuran	ND	0.339	ND	1.00	01/29/13	KCA	TO15 1
Toluene	1.33	0.266	5.01	1.00	01/29/13	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15
Trichloroethene	0.1	0.047	0.537	0.25	01/29/13	KCA	TO15
Trichlorofluoromethane	0.22	0.178	1.24	1.00	01/29/13	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.00	01/29/13	KCA	TO15
Vinyl Chloride	ND	0.098	ND	0.25	01/29/13	KCA	TO15
<u>QA/QC Surrogates</u>							
% Bromofluorobenzene	104	%	104	%	01/29/13	KCA	TO15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

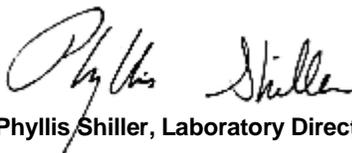
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

February 05, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 February 05, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: AIR
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/25/13 11:00
 01/28/13 16:49

Laboratory Data

SDG ID: GBD24326
 Phoenix ID: BD24329

Project ID: 291 METROPOLITAN AVE
 Client ID: SG 4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
<u>Volatiles (TO15)</u>							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15 1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15
1,1,2-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,2-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,2-dichloropropane	ND	0.216	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	01/29/13	KCA	TO15
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,3-Butadiene	ND	0.452	ND	1.00	01/29/13	KCA	TO15
1,3-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dioxane	ND	0.278	ND	1.00	01/29/13	KCA	TO15
2-Hexanone(MBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15 1
4-Ethyltoluene	ND	0.204	ND	1.00	01/29/13	KCA	TO15 1
4-Isopropyltoluene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15
Acetone	1.23	0.421	2.92	1.00	01/29/13	KCA	TO15
Acrylonitrile	ND	0.461	ND	1.00	01/29/13	KCA	TO15
Benzene	ND	0.313	ND	1.00	01/29/13	KCA	TO15
Benzyl chloride	ND	0.193	ND	1.00	01/29/13	KCA	TO15
Bromodichloromethane	ND	0.149	ND	1.00	01/29/13	KCA	TO15

Client ID: SG 4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Bromoform	ND	0.097	ND	1.00	01/29/13	KCA	TO15
Bromomethane	ND	0.258	ND	1.00	01/29/13	KCA	TO15
Carbon Disulfide	2.51	0.321	7.81	1.00	01/29/13	KCA	TO15
Carbon Tetrachloride	0.06	0.040	0.377	0.25	01/29/13	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.00	01/29/13	KCA	TO15
Chloroethane	ND	0.379	ND	1.00	01/29/13	KCA	TO15
Chloroform	ND	0.205	ND	1.00	01/29/13	KCA	TO15
Chloromethane	ND	0.484	ND	1.00	01/29/13	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15 1
Cyclohexane	ND	0.291	ND	1.00	01/29/13	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.00	01/29/13	KCA	TO15
Dichlorodifluoromethane	4.93	0.202	24.4	1.00	01/29/13	KCA	TO15
Ethanol	8.58	0.531	16.2	1.00	01/29/13	KCA	TO15 1
Ethyl acetate	0.57	0.278	2.05	1.00	01/29/13	KCA	TO15 1
Ethylbenzene	0.31	0.230	1.34	1.00	01/29/13	KCA	TO15
Heptane	ND	0.244	ND	1.00	01/29/13	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.00	01/29/13	KCA	TO15
Hexane	ND	0.284	ND	1.00	01/29/13	KCA	TO15
Isopropylalcohol	0.92	0.407	2.26	1.00	01/29/13	KCA	TO15
Isopropylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
m,p-Xylene	0.94	0.230	4.08	1.00	01/29/13	KCA	TO15
Methyl Ethyl Ketone	ND	0.339	ND	1.00	01/29/13	KCA	TO15
Methyl tert-butyl ether(MTBE)	0.42	0.278	1.51	1.00	01/29/13	KCA	TO15
Methylene Chloride	0.54	0.288	1.87	1.00	01/29/13	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
o-Xylene	0.39	0.230	1.69	1.00	01/29/13	KCA	TO15
Propylene	1.1	0.581	1.89	1.00	01/29/13	KCA	TO15 1
sec-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
Styrene	ND	0.235	ND	1.00	01/29/13	KCA	TO15
Tetrachloroethene	2.73	0.037	18.5	0.25	01/29/13	KCA	TO15
Tetrahydrofuran	ND	0.339	ND	1.00	01/29/13	KCA	TO15 1
Toluene	1.16	0.266	4.37	1.00	01/29/13	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15
Trichloroethene	ND	0.047	ND	0.25	01/29/13	KCA	TO15
Trichlorofluoromethane	0.21	0.178	1.18	1.00	01/29/13	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.00	01/29/13	KCA	TO15
Vinyl Chloride	ND	0.098	ND	0.25	01/29/13	KCA	TO15
<u>QA/QC Surrogates</u>							
% Bromofluorobenzene	104	%	104	%	01/29/13	KCA	TO15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

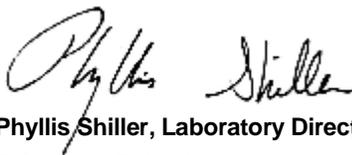
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

February 05, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



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 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

February 05, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: AIR
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date: 01/25/13 14:35
 01/28/13 16:49

Laboratory Data

SDG ID: GBD24326
 Phoenix ID: BD24330

Project ID: 291 METROPOLITAN AVE
 Client ID: SS 1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Volatiles (TO15)							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15 1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15
1,1,2-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,2-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,2-dichloropropane	ND	0.216	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	01/29/13	KCA	TO15
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,3-Butadiene	ND	0.452	ND	1.00	01/29/13	KCA	TO15
1,3-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dioxane	0.44	0.278	1.58	1.00	01/29/13	KCA	TO15
2-Hexanone(MBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15 1
4-Ethyltoluene	ND	0.204	ND	1.00	01/29/13	KCA	TO15 1
4-Isopropyltoluene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
4-Methyl-2-pentanone(MIBK)	0.45	0.244	1.84	1.00	01/29/13	KCA	TO15
Acetone	89.4	0.421	212	1.00	01/29/13	KCA	TO15
Acrylonitrile	ND	0.461	ND	1.00	01/29/13	KCA	TO15
Benzene	3.41	0.313	10.9	1.00	01/29/13	KCA	TO15
Benzyl chloride	ND	0.193	ND	1.00	01/29/13	KCA	TO15
Bromodichloromethane	ND	0.149	ND	1.00	01/29/13	KCA	TO15

Client ID: SS 1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Bromoform	ND	0.097	ND	1.00	01/29/13	KCA	TO15
Bromomethane	ND	0.258	ND	1.00	01/29/13	KCA	TO15
Carbon Disulfide	0.36	0.321	1.12	1.00	01/29/13	KCA	TO15
Carbon Tetrachloride	0.08	0.040	0.503	0.25	01/29/13	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.00	01/29/13	KCA	TO15
Chloroethane	ND	0.379	ND	1.00	01/29/13	KCA	TO15
Chloroform	ND	0.205	ND	1.00	01/29/13	KCA	TO15
Chloromethane	0.59	0.484	1.22	1.00	01/29/13	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15 1
Cyclohexane	ND	0.291	ND	1.00	01/29/13	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.00	01/29/13	KCA	TO15
Dichlorodifluoromethane	0.53	0.202	2.62	1.00	01/29/13	KCA	TO15
Ethanol	14	0.531	26.4	1.00	01/29/13	KCA	TO15 1
Ethyl acetate	2.02	0.278	7.27	1.00	01/29/13	KCA	TO15 1
Ethylbenzene	0.6	0.230	2.60	1.00	01/29/13	KCA	TO15
Heptane	0.82	0.244	3.36	1.00	01/29/13	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.00	01/29/13	KCA	TO15
Hexane	ND	0.284	ND	1.00	01/29/13	KCA	TO15
Isopropylalcohol	2.55	0.407	6.26	1.00	01/29/13	KCA	TO15
Isopropylbenzene	3.01	0.204	14.8	1.00	01/29/13	KCA	TO15
m,p-Xylene	1.03	0.230	4.47	1.00	01/29/13	KCA	TO15
Methyl Ethyl Ketone	2.93	0.339	8.64	1.00	01/29/13	KCA	TO15
Methyl tert-butyl ether(MTBE)	ND	0.278	ND	1.00	01/29/13	KCA	TO15
Methylene Chloride	0.79	0.288	2.74	1.00	01/29/13	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
o-Xylene	0.49	0.230	2.13	1.00	01/29/13	KCA	TO15
Propylene	3.96	0.581	6.81	1.00	01/29/13	KCA	TO15 1
sec-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
Styrene	ND	0.235	ND	1.00	01/29/13	KCA	TO15
Tetrachloroethene	1.15	0.037	7.80	0.25	01/29/13	KCA	TO15
Tetrahydrofuran	0.75	0.339	2.21	1.00	01/29/13	KCA	TO15 1
Toluene	3.49	0.266	13.1	1.00	01/29/13	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15
Trichloroethene	0.91	0.047	4.89	0.25	01/29/13	KCA	TO15
Trichlorofluoromethane	0.27	0.178	1.52	1.00	01/29/13	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.00	01/29/13	KCA	TO15
Vinyl Chloride	0.1	0.098	0.255	0.25	01/29/13	KCA	TO15
<u>QA/QC Surrogates</u>							
% Bromofluorobenzene	97	%	97	%	01/29/13	KCA	TO15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
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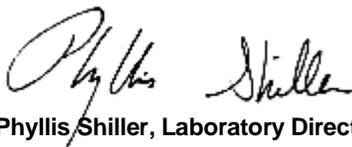
1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

February 05, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

February 05, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: AIR
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date: 01/25/13 14:30
 01/28/13 16:49

Laboratory Data

SDG ID: GBD24326
 Phoenix ID: BD24331

Project ID: 291 METROPOLITAN AVE
 Client ID: SS 3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Volatiles (TO15)							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15 1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15
1,1,2-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,1-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	01/29/13	KCA	TO15
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,2-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15
1,2-dichloropropane	ND	0.216	ND	1.00	01/29/13	KCA	TO15
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	01/29/13	KCA	TO15
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
1,3-Butadiene	ND	0.452	ND	1.00	01/29/13	KCA	TO15
1,3-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15
1,4-Dioxane	ND	0.278	ND	1.00	01/29/13	KCA	TO15
2-Hexanone(MBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15 1
4-Ethyltoluene	ND	0.204	ND	1.00	01/29/13	KCA	TO15 1
4-Isopropyltoluene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15
Acetone	15.2	0.421	36.1	1.00	01/29/13	KCA	TO15
Acrylonitrile	ND	0.461	ND	1.00	01/29/13	KCA	TO15
Benzene	1.01	0.313	3.22	1.00	01/29/13	KCA	TO15
Benzyl chloride	ND	0.193	ND	1.00	01/29/13	KCA	TO15
Bromodichloromethane	ND	0.149	ND	1.00	01/29/13	KCA	TO15

Client ID: SS 3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Bromoform	ND	0.097	ND	1.00	01/29/13	KCA	TO15
Bromomethane	ND	0.258	ND	1.00	01/29/13	KCA	TO15
Carbon Disulfide	0.68	0.321	2.12	1.00	01/29/13	KCA	TO15
Carbon Tetrachloride	0.7	0.040	4.40	0.25	01/29/13	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.00	01/29/13	KCA	TO15
Chloroethane	ND	0.379	ND	1.00	01/29/13	KCA	TO15
Chloroform	0.38	0.205	1.85	1.00	01/29/13	KCA	TO15
Chloromethane	ND	0.484	ND	1.00	01/29/13	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15 1
Cyclohexane	0.48	0.291	1.65	1.00	01/29/13	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.00	01/29/13	KCA	TO15
Dichlorodifluoromethane	2.22	0.202	11.0	1.00	01/29/13	KCA	TO15
Ethanol	21.9	0.531	41.2	1.00	01/29/13	KCA	TO15 1
Ethyl acetate	1.47	0.278	5.29	1.00	01/29/13	KCA	TO15 1
Ethylbenzene	ND	0.230	ND	1.00	01/29/13	KCA	TO15
Heptane	0.46	0.244	1.88	1.00	01/29/13	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.00	01/29/13	KCA	TO15
Hexane	1.13	0.284	3.98	1.00	01/29/13	KCA	TO15
Isopropylalcohol	2.55	0.407	6.26	1.00	01/29/13	KCA	TO15
Isopropylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
m,p-Xylene	0.54	0.230	2.34	1.00	01/29/13	KCA	TO15
Methyl Ethyl Ketone	ND	0.339	ND	1.00	01/29/13	KCA	TO15
Methyl tert-butyl ether(MTBE)	ND	0.278	ND	1.00	01/29/13	KCA	TO15
Methylene Chloride	0.43	0.288	1.49	1.00	01/29/13	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
o-Xylene	ND	0.230	ND	1.00	01/29/13	KCA	TO15
Propylene	ND	0.581	ND	1.00	01/29/13	KCA	TO15 1
sec-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
Styrene	ND	0.235	ND	1.00	01/29/13	KCA	TO15
Tetrachloroethene	0.61	0.037	4.13	0.25	01/29/13	KCA	TO15
Tetrahydrofuran	ND	0.339	ND	1.00	01/29/13	KCA	TO15 1
Toluene	0.91	0.266	3.43	1.00	01/29/13	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15
Trichloroethene	ND	0.047	ND	0.25	01/29/13	KCA	TO15
Trichlorofluoromethane	ND	0.178	ND	1.00	01/29/13	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.00	01/29/13	KCA	TO15
Vinyl Chloride	ND	0.098	ND	0.25	01/29/13	KCA	TO15
<u>QA/QC Surrogates</u>							
% Bromofluorobenzene	102	%	102	%	01/29/13	KCA	TO15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

February 05, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 February 05, 2013

FOR: Attn: Mr. Charles B. Sosik, P.G.
 Environmental Business Consultants
 1808 Middle Country Rd
 Ridge NY 11961-2406

Sample Information

Matrix: AIR
 Location Code: EBC
 Rush Request: 72 Hour
 P.O.#:

Custody Information

Collected by:
 Received by: SW
 Analyzed by: see "By" below

Date Time
 01/25/13 14:25
 01/28/13 16:49

Laboratory Data

SDG ID: GBD24326
 Phoenix ID: BD24332

Project ID: 291 METROPOLITAN AVE
 Client ID: SS 4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference	
<u>Volatiles (TO15)</u>								
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15	1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15	
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	01/29/13	KCA	TO15	
1,1,2-Trichloroethane	ND	0.183	ND	1.00	01/29/13	KCA	TO15	
1,1-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15	
1,1-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15	
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	01/29/13	KCA	TO15	
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15	
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	01/29/13	KCA	TO15	
1,2-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15	
1,2-Dichloroethane	ND	0.247	ND	1.00	01/29/13	KCA	TO15	
1,2-dichloropropane	ND	0.216	ND	1.00	01/29/13	KCA	TO15	
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	01/29/13	KCA	TO15	
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15	
1,3-Butadiene	ND	0.452	ND	1.00	01/29/13	KCA	TO15	
1,3-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15	
1,4-Dichlorobenzene	ND	0.166	ND	1.00	01/29/13	KCA	TO15	
1,4-Dioxane	ND	0.278	ND	1.00	01/29/13	KCA	TO15	
2-Hexanone(MBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15	1
4-Ethyltoluene	ND	0.204	ND	1.00	01/29/13	KCA	TO15	1
4-Isopropyltoluene	ND	0.182	ND	1.00	01/29/13	KCA	TO15	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	01/29/13	KCA	TO15	
Acetone	48.7	0.421	116	1.00	01/29/13	KCA	TO15	
Acrylonitrile	ND	0.461	ND	1.00	01/29/13	KCA	TO15	
Benzene	1.52	0.313	4.85	1.00	01/29/13	KCA	TO15	
Benzyl chloride	ND	0.193	ND	1.00	01/29/13	KCA	TO15	
Bromodichloromethane	ND	0.149	ND	1.00	01/29/13	KCA	TO15	

Client ID: SS 4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
Bromoform	ND	0.097	ND	1.00	01/29/13	KCA	TO15
Bromomethane	ND	0.258	ND	1.00	01/29/13	KCA	TO15
Carbon Disulfide	2.91	0.321	9.06	1.00	01/29/13	KCA	TO15
Carbon Tetrachloride	0.05	0.040	0.314	0.25	01/29/13	KCA	TO15
Chlorobenzene	ND	0.217	ND	1.00	01/29/13	KCA	TO15
Chloroethane	ND	0.379	ND	1.00	01/29/13	KCA	TO15
Chloroform	ND	0.205	ND	1.00	01/29/13	KCA	TO15
Chloromethane	ND	0.484	ND	1.00	01/29/13	KCA	TO15
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15 1
Cyclohexane	ND	0.291	ND	1.00	01/29/13	KCA	TO15
Dibromochloromethane	ND	0.117	ND	1.00	01/29/13	KCA	TO15
Dichlorodifluoromethane	0.59	0.202	2.92	1.00	01/29/13	KCA	TO15
Ethanol	222	E 0.531	418	1.00	01/29/13	KCA	TO15 1
Ethyl acetate	1.1	0.278	3.96	1.00	01/29/13	KCA	TO15 1
Ethylbenzene	0.36	0.230	1.56	1.00	01/29/13	KCA	TO15
Heptane	1.27	0.244	5.20	1.00	01/29/13	KCA	TO15
Hexachlorobutadiene	ND	0.094	ND	1.00	01/29/13	KCA	TO15
Hexane	0.84	0.284	2.96	1.00	01/29/13	KCA	TO15
Isopropylalcohol	2.28	0.407	5.60	1.00	01/29/13	KCA	TO15
Isopropylbenzene	ND	0.204	ND	1.00	01/29/13	KCA	TO15
m,p-Xylene	0.98	0.230	4.25	1.00	01/29/13	KCA	TO15
Methyl Ethyl Ketone	3.56	0.339	10.5	1.00	01/29/13	KCA	TO15
Methyl tert-butyl ether(MTBE)	1.08	0.278	3.89	1.00	01/29/13	KCA	TO15
Methylene Chloride	0.54	0.288	1.87	1.00	01/29/13	KCA	TO15
n-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
o-Xylene	0.46	0.230	2.00	1.00	01/29/13	KCA	TO15
Propylene	7.6	0.581	13.1	1.00	01/29/13	KCA	TO15 1
sec-Butylbenzene	ND	0.182	ND	1.00	01/29/13	KCA	TO15 1
Styrene	ND	0.235	ND	1.00	01/29/13	KCA	TO15
Tetrachloroethene	1.08	0.037	7.32	0.25	01/29/13	KCA	TO15
Tetrahydrofuran	ND	0.339	ND	1.00	01/29/13	KCA	TO15 1
Toluene	1.59	0.266	5.99	1.00	01/29/13	KCA	TO15
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	01/29/13	KCA	TO15
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	01/29/13	KCA	TO15
Trichloroethene	ND	0.047	ND	0.25	01/29/13	KCA	TO15
Trichlorofluoromethane	0.21	0.178	1.18	1.00	01/29/13	KCA	TO15
Trichlorotrifluoroethane	ND	0.130	ND	1.00	01/29/13	KCA	TO15
Vinyl Chloride	ND	0.098	ND	0.25	01/29/13	KCA	TO15
<u>QA/QC Surrogates</u>							
% Bromofluorobenzene	103	%	103	%	01/29/13	KCA	TO15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Reference
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1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

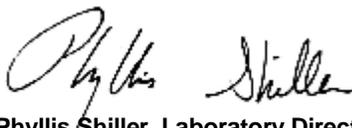
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected

BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

February 05, 2013

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



QA/QC Report

February 05, 2013

QA/QC Data

SDG I.D.: GBD24326

Parameter	Blank ppbv	Blank ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 220380, QC Sample No: BD24326 (BD24326, BD24327, BD24328, BD24329, BD24330, BD24331, BD24332)										
Volatiles										
1,1,1,2-Tetrachloroethane	ND	ND	105	ND	ND	ND	ND	NC	70 - 130	20
1,1,1-Trichloroethane	ND	ND	99	ND	ND	ND	ND	NC	70 - 130	20
1,1,2,2-Tetrachloroethane	ND	ND	96	ND	ND	ND	ND	NC	70 - 130	20
1,1,2-Trichloroethane	ND	ND	86	ND	ND	ND	ND	NC	70 - 130	20
1,1-Dichloroethane	ND	ND	97	ND	ND	ND	ND	NC	70 - 130	20
1,1-Dichloroethene	ND	ND	100	ND	ND	ND	ND	NC	70 - 130	20
1,2,4-Trichlorobenzene	ND	ND	82	ND	ND	ND	ND	NC	70 - 130	20
1,2,4-Trimethylbenzene	ND	ND	96	ND	ND	ND	ND	NC	70 - 130	20
1,2-Dibromoethane(EDB)	ND	ND	87	ND	ND	ND	ND	NC	70 - 130	20
1,2-Dichlorobenzene	ND	ND	85	ND	ND	ND	ND	NC	70 - 130	20
1,2-Dichloroethane	ND	ND	97	ND	ND	ND	ND	NC	70 - 130	20
1,2-dichloropropane	ND	ND	88	ND	ND	ND	ND	NC	70 - 130	20
1,2-Dichlorotetrafluoroethane	ND	ND	98	ND	ND	ND	ND	NC	70 - 130	20
1,3,5-Trimethylbenzene	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
1,3-Butadiene	ND	ND	99	ND	ND	ND	ND	NC	70 - 130	20
1,3-Dichlorobenzene	ND	ND	88	ND	ND	ND	ND	NC	70 - 130	20
1,4-Dichlorobenzene	ND	ND	86	ND	ND	ND	ND	NC	70 - 130	20
1,4-Dioxane	ND	ND	100	ND	ND	ND	ND	NC	70 - 130	20
2-Hexanone(MBK)	ND	ND	88	ND	ND	ND	ND	NC	70 - 130	20
4-Ethyltoluene	ND	ND	99	ND	ND	ND	ND	NC	70 - 130	20
4-Isopropyltoluene	ND	ND	106	ND	ND	ND	ND	NC	70 - 130	20
4-Methyl-2-pentanone(MIBK)	ND	ND	92	ND	ND	ND	ND	NC	70 - 130	20
Acetone	ND	ND	100	55.3	54.4	23.3	22.9	1.7	70 - 130	20
Acrylonitrile	ND	ND	112	ND	ND	ND	ND	NC	70 - 130	20
Benzene	ND	ND	108	1.37	1.34	0.43	0.42	2.4	70 - 130	20
Benzyl chloride	ND	ND	93	ND	ND	ND	ND	NC	70 - 130	20
Bromodichloromethane	ND	ND	83	ND	ND	ND	ND	NC	70 - 130	20
Bromoform	ND	ND	108	ND	ND	ND	ND	NC	70 - 130	20
Bromomethane	ND	ND	93	ND	ND	ND	ND	NC	70 - 130	20
Carbon Disulfide	ND	ND	89	5.51	5.38	1.77	1.73	2.3	70 - 130	20
Carbon Tetrachloride	ND	ND	98	0.314	0.314	0.05	0.05	0.0	70 - 130	20
Chlorobenzene	ND	ND	101	ND	ND	ND	ND	NC	70 - 130	20
Chloroethane	ND	ND	95	ND	ND	ND	ND	NC	70 - 130	20
Chloroform	ND	ND	98	ND	ND	ND	ND	NC	70 - 130	20
Chloromethane	ND	ND	92	ND	ND	ND	ND	NC	70 - 130	20
Cis-1,2-Dichloroethene	ND	ND	99	ND	ND	ND	ND	NC	70 - 130	20
cis-1,3-Dichloropropene	ND	ND	99	ND	ND	ND	ND	NC	70 - 130	20
Cyclohexane	ND	ND	116	ND	ND	ND	ND	NC	70 - 130	20
Dibromochloromethane	ND	ND	86	ND	ND	ND	ND	NC	70 - 130	20
Dichlorodifluoromethane	ND	ND	97	2.42	2.37	0.49	0.48	2.1	70 - 130	20
Ethanol	ND	ND	109	20.0	18.4	10.6	9.8	7.8	70 - 130	20

QA/QC Data

SDG I.D.: GBD24326

Parameter	Blank ppbv	Blank ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Ethyl acetate	ND	ND	103	2.88	2.77	0.8	0.77	3.8	70 - 130	20
Ethylbenzene	ND	ND	110	ND	ND	ND	ND	NC	70 - 130	20
Heptane	ND	ND	88	1.19	1.10	0.29	0.27	7.1	70 - 130	20
Hexachlorobutadiene	ND	ND	75	ND	ND	ND	ND	NC	70 - 130	20
Hexane	ND	ND	107	ND	1.76	ND	0.5	NC	70 - 130	20
Isopropylalcohol	ND	ND	97	ND	ND	ND	ND	NC	70 - 130	20
Isopropylbenzene	ND	ND	108	ND	ND	ND	ND	NC	70 - 130	20
m,p-Xylene	ND	ND	104	2.86	2.86	0.66	0.66	0.0	70 - 130	20
Methyl Ethyl Ketone	ND	ND	96	1.27	1.24	0.43	0.42	2.4	70 - 130	20
Methyl tert-butyl ether(MTBE)	ND	ND	103	20.4	20.0	5.67	5.54	2.3	70 - 130	20
Methylene Chloride	ND	ND	90	3.85	3.85	1.11	1.11	0.0	70 - 130	20
n-Butylbenzene	ND	ND	105	ND	ND	ND	ND	NC	70 - 130	20
o-Xylene	ND	ND	101	ND	ND	ND	ND	NC	70 - 130	20
Propylene	ND	ND	110	ND	ND	ND	ND	NC	70 - 130	20
sec-Butylbenzene	ND	ND	106	ND	ND	ND	ND	NC	70 - 130	20
Styrene	ND	ND	108	ND	ND	ND	ND	NC	70 - 130	20
Tetrachloroethene	ND	ND	88	11.3	10.6	1.67	1.57	6.2	70 - 130	20
Tetrahydrofuran	ND	ND	126	ND	ND	ND	ND	NC	70 - 130	20
Toluene	ND	ND	93	7.42	7.12	1.97	1.89	4.1	70 - 130	20
Trans-1,2-Dichloroethene	ND	ND	94	ND	ND	ND	ND	NC	70 - 130	20
trans-1,3-Dichloropropene	ND	ND	84	ND	ND	ND	ND	NC	70 - 130	20
Trichloroethene	ND	ND	92	ND	ND	ND	ND	NC	70 - 130	20
Trichlorofluoromethane	ND	ND	92	1.29	1.24	0.23	0.22	4.4	70 - 130	20
Trichlorotrifluoroethane	ND	ND	98	ND	ND	ND	ND	NC	70 - 130	20
Vinyl Chloride	ND	ND	101	ND	ND	ND	ND	NC	70 - 130	20
% Bromofluorobenzene	102	102	98	104	103	104	103	1.0	70 - 130	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

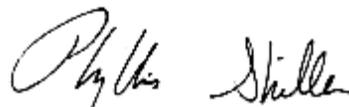
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director
February 05, 2013

Tuesday, February 05, 2013

Requested Criteria: None

State: NY

Sample Criteria Exceedences Report

Page 1 of 1

GBD24326 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



CHAIN OF CUSTODY RECORD AIR ANALYSES

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: info@phoenixlabs.com Fax (860) 645-0823
 Client Services (860) 645-1102

Pg. of

Data Delivery:

Fax #:

Email:

581EElectronics.com

Is Canister Returned Unused? Y/N

Report to: ERC Invoice to: ERC Project Name:

Address: 1805 Middle Country Rd Ridge NY Address: 211 Metropolitan Ave Location: Brooklyn NY

Project Mgr: Kevin Brusses P.O. # State: NY

Phone # 631 504 6000 Quote # Sampled by: KW

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	LAB USE ONLY			Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End (" Hg)	Ambient/Indoor Air
				Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure (" Hg)	Flow Regulator ID #							
24326	SSG1	12868	6		-3	5041 ✓		0810	1010	1-25-13	-30	-6	X
24327	SG2	0464			-4	2870 ✓		0815	1015		-30	-7	
24328	SG3	0480			0	2803 ✓		0905	1105		-30	-5	
24329	SG4	13644			0	4979 ✓		0900	1100		-29	-3	
24330	SS1	13630			0	2860 ✓		1235	1435		-30	-6	
24331	SS3	0487			-3	2862 ✓		1230	1430		-30	-6	
24332	SS4	0482			-3	5046 ✓		1225	1425		-30	-5	
24333	SS2*	13636				2869 ✓		1230	1430		-24		

Relinquished by: [Signature] Date: 1-28-13 Time: 10:30

Accepted by: [Signature] Date: 1-28-13 Time: 10:49

Criteria Requested: Deliverable: Excel PDF GISKey

State where samples collected: NY RCP MCP Other:

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.

Signature: [Signature] Date:

SPECIAL INSTRUCTIONS, OC REQUIREMENTS, REGULATORY INFORMATION:

* SS2 did not fill. Do not analyze.